

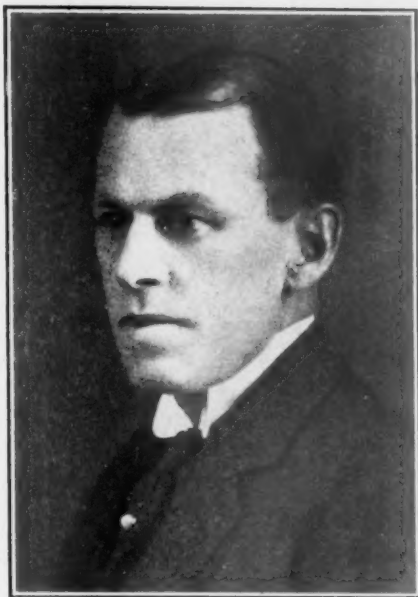
THE MINING CONGRESS JOURNAL

NOVEMBER, 1918

VOL. IV

SAFETY—EFFICIENCY—CONSERVATION

No. 11



JAMES B. NEALE

Director of Production, U. S. Fuel Administration,
who has been an important factor in encouraging
the production of coal.

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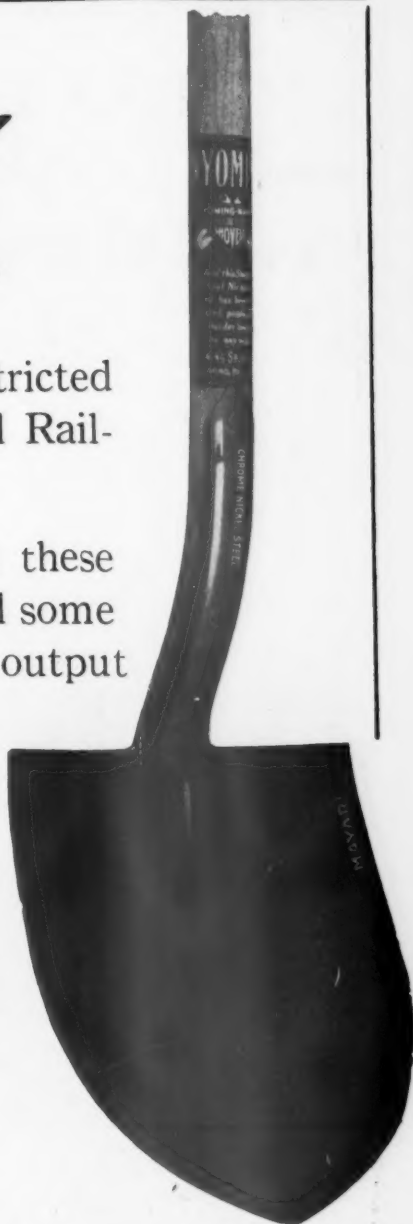
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NOVEMBER

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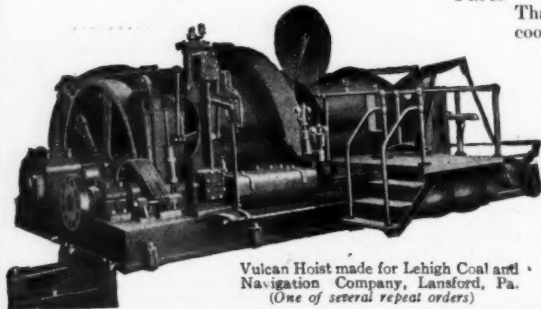
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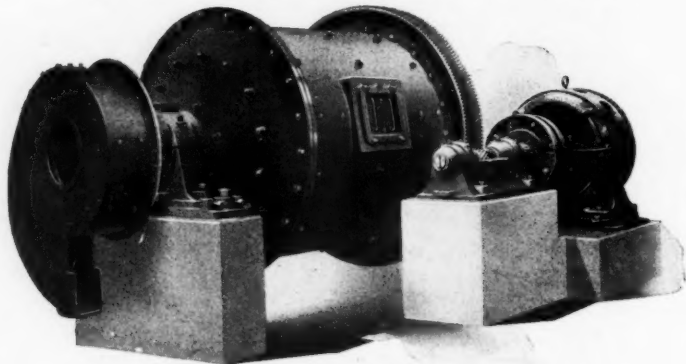
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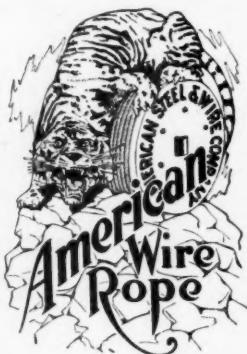
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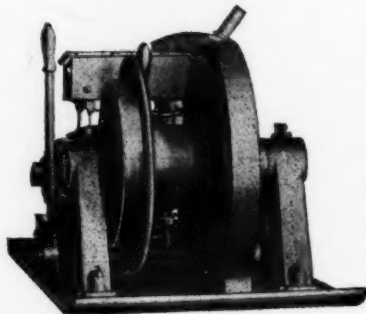
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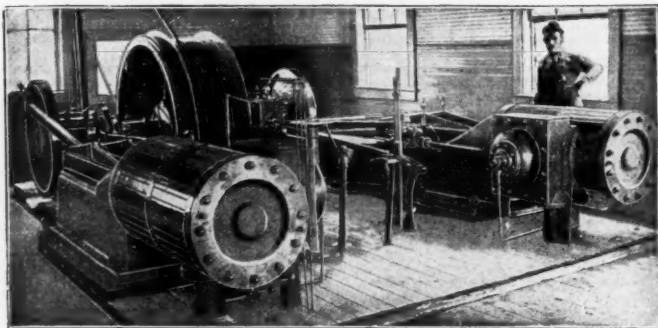
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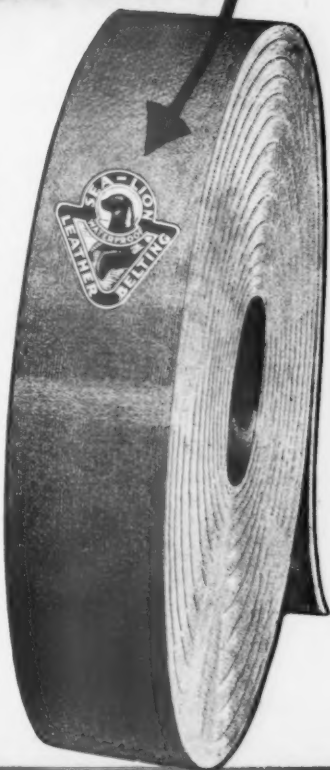
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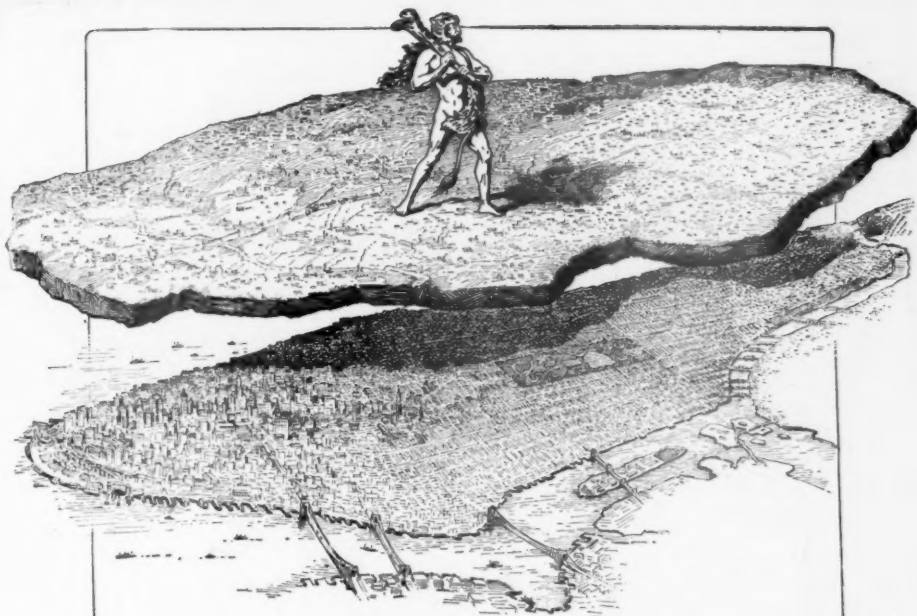
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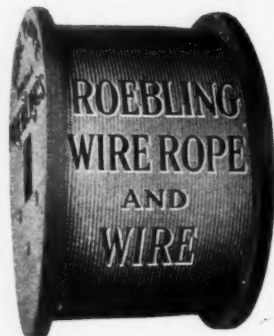


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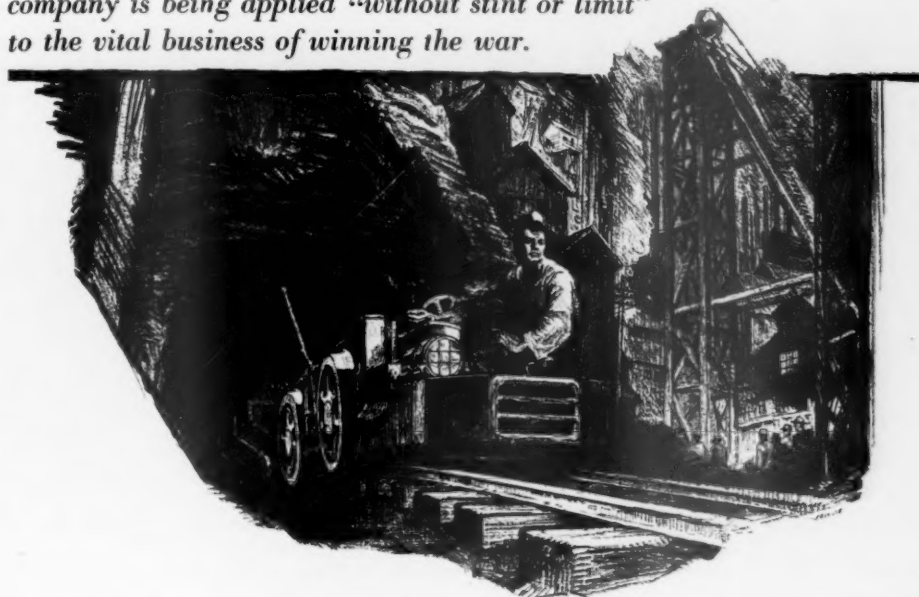
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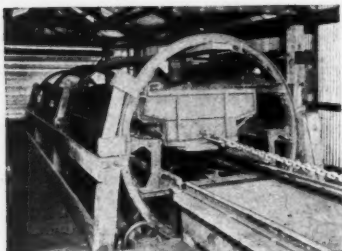


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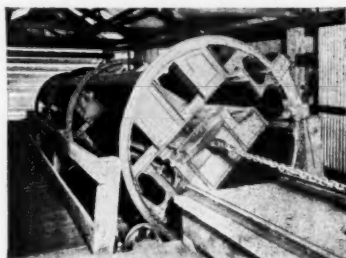
would save in handling the output of your mine depends on your conditions. An important saving in labor, likewise savings in car expense and in other ways, is certain. At the same time production is increased. To discover just what this Dump would do at your mine write us details of your operation. Bulletin 180—, and suggestions from our Engineering Service—no charge—will be sent promptly.

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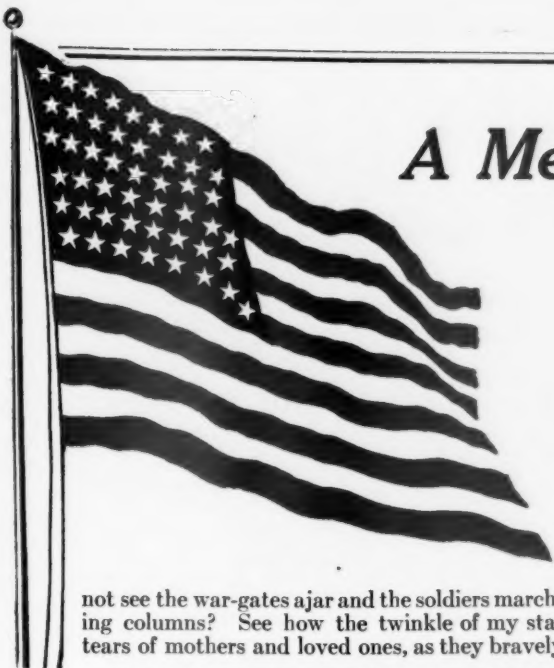
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St. Louis
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A Message from the Flag

BEHOLD within my folds the most impressive moving picture ever produced within this land of ours. Look closely at my brilliant stars, one for each State in our beloved Union. Can you

not see the war-gates ajar and the soldiers marching off to battle in ever increasing columns? See how the twinkle of my stars is brightened by the joyous tears of mothers and loved ones, as they bravely wave their hands in farewell.

Glance down my pure white stripes, the roadways of justice and right, and see the men marching with squared shoulders, heads erect and the light of freedom in their eyes. The red stripes alongside the marching columns represent the life-blood that proudly will be given for civilization. These men will form a part of the wave that will roll back the barbarous principle of the Huns; roll it back to Berlin and, please God, even beyond into the North Sea, there to drown forever that damnable principle that transforms men into the foulest fiends of hell, causing them to rape, mutilate, burn, pillage and destroy.

When the unspeakable crimes against little children, helpless women and wounded men shall have been crushed out, and not until then, these gallant men will return. Then again a picture will be revealed within my folds. The fighting hosts will pass back through the war-gates into glorious peace and my stars will twinkle with renewed joy and gladness.

And now, as you raise your eyes to see me wave over the land of the free, does there not come a voice to your conscience, saying:

"I REPRESENT THE SPIRIT OF THE DEAD AND THE FLESH OF THE LIVING WHO ARE TODAY MAKING THE WORLD SAFE FOR YOU AND YOURS. WHAT ARE YOU DOING TO AID IN THE STRUGGLE?"

What must your feelings be if, in truth, you now answer:

"I have not even bought a Thrift Stamp!"

EDWIN HIGGINS.

CALIFORNIA METAL PRODUCERS
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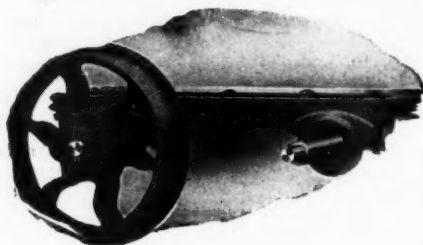
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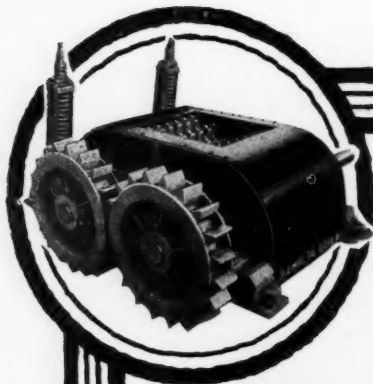
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THE MINING CONGRESS JOURNAL

Official Organ of the American Mining Congress

AROUND A WIDENING CIRCLE

Prices of practically all commodities continue to advance. Each monthly cycle records an increase of one or more per cent in the diameter of the circle around which the business of the nation must revolve. Scarcity of production and of supplies in the market calls for an increase in price. This means an increase in the cost of living which calls for increased wages. The increase in wages, representing 75 per cent of the cost of practically all articles of consumption, necessarily means another increase in the price of commodities. This increase in the price of commodities requires a still further increase in wages, and thus with regular occurrence we are revolving around a circle of continually increasing prices. It is easy to do business on a rising market and equally difficult to do business profitably on a falling market. Sometime and somewhere there must be a limit found at which point prices must begin to recede. Those who have taken a large profit on increasing prices may well afford to discount and accept a loss upon stocks in hand.

Those who have purchased their entire stocks at high prices must necessarily stand heavy losses. But what is to happen to the industries of the country when high cost production can find no market, and low cost production is impossible because of the high cost of labor and material? This is a burning problem, a problem which must be solved by intelligent foresight now, or

be paid for later by business distress, unemployed labor, want and suffering.

MINING CONGRESS JOURNAL hopes to present in its December number a symposium discussion of this most important subject.

COOPERATION vs. COMPETITION IN THE COAL TRADE

The many advantages of that system of government which permitted success in proportion to the organizing ability of the individual has never before been so generally recognized as it is today. And yet, with all of the advantages which have accrued with this system, its success has been the subject of continual attack by those with the ability to criticize but not to construct; the ability to tear down but not to build. The first great national protest against the result of this system found national expression in the Sherman Anti-Trust Law. Its purpose was to make it possible for the man with small business ability and small capital, and perhaps no organization, to do business upon an equal basis with the man of commanding brain, large capital and complete organization.

It was not until the Supreme Court of the United States so construed the law as to make its terms reasonable that it became effective. The new construction of the law bids fair to make it a real, effective and beneficial force. The breaking out of the war brought about entirely new conditions, in which combinations were required by the Government, which in the pre-war period would

have called for heavy fines and imprisonment.

In May, 1917, the coal operators of Indiana presented to the Federal Trade Commission and to the Department of Justice their plea for permission to so cooperate as to remove the disastrous competition which was then wrecking their business. The Federal Trade Commission expressed full sympathy and its desire to lend any possible assistance, but stated that under the law it had no authority to take any affirmative action in the premises.

The Department of Justice expressed its appreciation of the situation and its full sympathy, but, being the agency charged with the enforcement of the law, it could give no guiding advice.

At a later date the Illinois coal operators appealed to the Federal Trade Commission and the Department of Justice for approval of a modified form of cooperation, and received such encouragement that the Franklin County Association was organized and for some months operated a plan by which a central secretary reported to the members, at stipulated periods, the total sales in the district, the high and low prices received, and the average selling price. This had a stabilizing effect, in that coal operators were not stampeded to sell at less than cost by the purchaser's story that he could obtain coal very much cheaper elsewhere. Unfortunately for this plan, it came into operation just at the outbreak of the war, when the demand for coal largely exceeded the supply and, in accordance with the law of supply and demand, prices rapidly advanced. Not long after under governmental pressure it was found expedient to disband the Franklin County Association and to discontinue its operation. This was shortly after followed by the creation of a national Fuel Administration and the practical control of the coal business by the Federal Government.

Then came enforced cooperation which in ordinary times would have been punished by imprisonment for terms extending to the third generation. Thus far the coal producing units have been so oper-

ated as to permit the unscrambling of this situation without detriment to the individual operations. There is much indication of a general desire that the coal industry shall continue in centralized operation. The Black Diamond expresses the belief that the purpose of the different bills introduced in the United States Senate providing for commissions to study the after-war problems and make investigations, is "as far as coal is concerned to arrange for the perpetuation of the Fuel Administration." THE MINING CONGRESS JOURNAL does not detect in these bills other than a desire that after-war problems shall be studied in advance, and that proper preparation shall be made to meet the inevitable changes which are necessary to return to former vocations the 10,000,000 men now engaged in war service.

One of the new and distinctly unique problems will be the discovery of the happy mean between enforced ruinous competition and the enforced cooperation which permits of no competition. MINING CONGRESS JOURNAL expresses the belief that the principles which it advocated before the creation of the Federal Trade Commission will eventually be recognized as the best possible solution of this situation. This general plan preserved the integrity of the Sherman Law as construed by the Supreme Court, and provided for government supervision of all combinations, whether of labor or capital, the power being given to some governmental agency to approve such combinations as will operate with benefit to the community and to withdraw such approval, leaving subject to prosecution, under the Sherman Law, all combinations whose operations are inimical to the public interest.

This question will again become important shortly after the close of the war. The largely increased productive capacity of the coal mines required to meet war needs will all be available after the war demand has ceased.

Normal coal consumption will not be sufficient to use the full output of the mines. Surplus production capacity will inevitably lead to cut-throat competition

as in the pre-war period, unless some remedy is devised to prevent. It is time now to begin the careful consideration of this question.

GOLD WILL COME BACK

Just so long as the present high price level is maintained, so long will the production of gold from the great low grade mines be impossible without some special stimulation. Practically every other article of production goes into a market in which the law of supply and demand controls the price. The concentrated business judgment of the world has for ages agreed that gold is the most satisfactory medium of exchange, the most satisfactory basis of credit, and the most satisfactory measure of values. Through the ages, and through all the varied conditions of industry and finance, through periods of high prices when gold production was greatly hampered, and through periods of low prices, when the purchasing value of gold was greatly enhanced, gold has remained the basis of financial transactions. Periods of high prices have shut off gold production, produced gold hoarding, and culminated in periods of great depression, a shrinkage of all values and the creation of conditions under which gold production was again profitable.

In recent years there has been a continual trend toward high prices. Price is made up of two elements: the cost of raw material and the cost of labor which fashions it for use. During recent years the increase in wages, the shortening of hours, the lessening of efficiency, have more than offset the increased capacity of labor made possible by mechanical invention.

No combination to control the cost of either natural resources or labor can permanently alter the value of gold. To the extent that organized labor has been responsible for an increase in wages, it has performed a valuable service. To the extent that it interferes with the efficiency of labor, it is adding greatly to its own burdens as well as the burdens of the world. Increased pay and increased efficiency must go hand in hand

else the advantage of invention will not inure to the benefit of the public. Increased wages and decreased efficiency, so long as all labor is employed, add continuously to the burden of high prices. High prices restrict consumption, *i. e.*, take from the masses the luxuries to which they have been accustomed.

This leads to a falling off in the demand for the production of semi-luxuries and the employment of this released labor, in the production of necessities. An over-supply of necessities and a decreased market demand for luxuries soon create a glutted market with its attendant falling prices.

When that time comes, the gold producer will again be in his glory, gold mining will again be profitable and the increase of gold somewhere near the ratio of the increase of other wealth will again obtain.

The owner of a gold mine need have no fear of the future. His product will find a profitable market either through intelligent foresight and statesmanship or through the crushing logic of an industrial panic. No combination has power to permanently destroy the standard of values.

WAR REVENUE LEGISLATION

The Senate Finance Committee has made no formal report of the Revenue Bill at the date of this writing. It will likely be reported when Congress reconvenes November 12.

The committee has worked earnestly with the view of making an earlier report, but important changes in the House Bill have been made requiring more time in its preparation.

We understand the following changes in the House Bill have been tentatively agreed to by the committee:

1. Lowering of the surtaxes on incomes below \$100,000 and raising them on incomes above such an amount. This it is reported, means a very small loss in revenue to the Government.

2. The definition of *Invested Capital* has been greatly improved. The bill will permit full valuation of tangible property exchanged for stock. The Senate

Committee is to be commended in making this change which is nothing more than justice. It removes the wrong done the conservative, honest business man and the premium placed on watered stock. In passing we may observe that this is one of the modifications asked by the American Mining Congress.

3. The committee has removed the penalty of 6 per cent on corporate undistributed earnings. The House Bill penalized every corporation 6 per cent on the amount retained in business. This is important to all corporate business but especially in the mining business, where earnings are continually going back into the business as of necessity. The American Mining Congress emphasized the necessity of removing this penalty.

4. The House Bill prohibited the filing of consolidated tax returns by corporations closely affiliated. The Senate Committee, recognizing the injustice of this provision has not only stricken out the House provision but has provided that such returns for both income and profit taxes shall be consolidated. Many mining corporations are closely affiliated with subsidiary operating companies, with identical ownership and inter-transactions making it as one business. The American Mining Congress is pleased to see this modification of the House Bill made as it is one of the important ones suggested by us.

5. The committee has recognized the need for special treatment of sales of mining, oil and gas properties, by fixing a maximum surtax on the income derived from the sale of such property by the discoverer at 20 per cent of selling price. This is an important step. The difference in the cost and selling price in the case of discovery is usually so great, and being realized in one year, that sales of such property have almost stopped. This feature has been suggested to both committees by The American Mining Congress with the hope of relieving the condition and as a fair recognition of the peculiar problems in mining.

6. One of the very important changes made by the committee is the allowance for depletion and depreciation. We

understand the committee has adopted a provision allowing to mines, oil and gas wells, other natural deposits and timber, an allowance for depletion, and depreciation of improvements. This allowance is to be given according to the peculiar conditions in each case, based on cost plus cost of improvement or value of property of March 1, 1912, if owned at that date. These privileges are made available to lessees as well as fee owners. An important additional provision is made *allowing the discoverer, regardless of cost, to have the market value of his property after discovery or within twelve months thereafter returned through depletion credits.* This is a step in the right direction, recognizing the distinguishing characteristics of mining. We have urged the adoption of an amendment permitting mines to have a reserve for replacement of ore or oil reserves. This principle is sound, just and right. Every pound of ore or barrel of oil removed and marketed is a partial liquidation of capital and that portion representing capital should not be taxed but should be utilized for replacement of reserve. The legislative and administrative departments have been inclined to treat mining companies, for taxation purposes, as a business in the hands of a receiver and in the course of winding up its affairs and going out of business. They lose sight of the fact that a "going mining business" must, if it continue in business, replace its deposits and that the sale of ore or oil is the diminishing or extinguishing of its chief capital asset. Sooner or later, Congress will recognize *replacement* in case of mines as being sound, equitable and just. We want to urge upon our readers, however, that the depletion allowance is an improvement over the old law and in many cases very substantial relief will be obtained thereby.

The House Bill provided for a war profits tax allowing pre-war earnings as a deduction. New corporations with pre-war earnings were to be allowed but 10 per cent of invested capital—a most manifestly unfair and unbusinesslike provisions. The House, by such tax, in

effect penalized all new corporations the basis of such reasoning being impossible to understand.

The American Mining Congress opposed the imposition of such penalty as against the announced policy of federal encouragement and contrary to good business practice. In its argument, showing the injustice proposed, The American Mining Congress Committee on Taxation presented the following illustration which made clear what would have happened:

Two corporations, each with \$10,000,000 capital, earnings 15 per cent on invested capital, the old company having a pre-war earning of 15 per cent, the tax computed under the House Bill as follows (eliminating the \$3,000 exemption for simplicity):

1. Old company:	
Capital..	\$10,000,000.00
Deduction.....	.08%
	\$800,000.00
Earnings	\$1,500,000.00
Deduction	800,000.00
Taxable income at.....	\$700,000.00
30% first bracket.....	.30
Tax	\$210,000.00
2. New company:	
Capital..	\$10,000,000.00
Tax under first bracket.....	\$210,000.00
Earnings	\$1,500,000.00
War profits credit.....	1,000,000.00
	\$500,000.00
	.80
80% of \$500,000.....	\$400,000.00
Less tax under first bracket	210,000.00
Tax under third bracket	\$190,000.00
	190,000.00
Total tax.....	\$400,000.00

This would have compelled the new competing corporation to pay 90 per cent more tax than its older rival of similar earnings and capital.

Discrimination such as this would have destroyed competition where conditions existed as illustrated. This would have been particularly true in the mining and oil business where nominal

earning must be more than 10 per cent upon capital.

The following provision has been added by the Senate Finance Committee which, we believe, fully covers the situation:

Sec. 312.

(c) If the corporation was not in existence during the whole of any one calendar year during the pre-war period, then the war-profits credit shall be the sum of:

- (1) A specific exemption of \$3,000; and
- (2) An amount which bears the same ratio to the net income of the corporation for the taxable year as the average war-profits credit (computed without the benefit of the specific exemption of \$3,000) of representative corporations engaged in a like or similar trade or business, bears to the average net income of such representative corporations for the taxable year; but such amount shall in no case be less than 10 per centum of the invested capital of the corporation for the taxable year.

This leaves but two of the eight special requests of our committee yet to be cared for:

First, a provision for companies having a pre-war record but which have so largely added to their capital investment since the war as to be practically on the same basis as new corporations.

The bill, as we understand it will be reported by the committee, leaves this new capital with a deduction of but 10 per cent, an entirely inadequate deduction in short-lived, hazardous and wasting industries. There would seem to be no reason why additional capital invested in a pre-war enterprise where the 80 per cent tax is to be applied, should not have the same deduction as the original capital and the same as if it had been invested in a new enterprise. We still hope that this inequity will be remedied.

Second, the request of our committee has not been approved that settlements made with the Treasury Department after a finding by its Advisory Board and approved by the Commission of Internal Revenue shall "be final unless set aside by a court of competent jurisdiction."

It may be that such settlements will be construed as final and yet there would

be no legal defense against an action by some succeeding internal revenue commissioner to recover a greater tax. It would seem but just that a settlement made after full disclosure of all the facts involved should be final.

GOLD PRODUCTION

NATIONAL QUESTION

It is very unfortunate that the first impression gained by the public of the discussion concerning gold production is that this is primarily intended for the benefit of the gold producers. As a matter of fact, its paramount interest lies in the question of the maintenance of the national credit.

At the beginning of the war, the gold reserves of the United States amounted to approximately one and three-quarter billions of dollars. At the present time, these reserves have increased to slightly over three billions of dollars. In the year 1913 the Internal Revenue taxes of the United States produced \$344,000,000. In 1917 the Internal Revenue taxes amounted to \$809,000,000. In 1913 the bank clearings of the United States amounted to \$173,000,000,000. In 1917 the bank clearings were \$303,000,000,000. These figures show that the ratio of burden upon the gold stock of the country was the same, proportionately, in 1917 as in 1913. It is probably true that by the time the war expense has been cared for, we shall have issued not less than \$25,000,000,000 of bonds, the principal and interest of which are payable in gold. This will call for the payment of approximately \$1,000,000,000 annually in interest, to say nothing of a proper sinking fund for the final redemption of these bonds at maturity.

There is no question of the financial ability of the United States to meet these obligations in goods and things money will buy, but we may well consider whether there will be sufficient gold and this question will be particularly apparent when gold is again permitted to resume its proper function in the finances of the world and made available not only to settle foreign balances, but to

respond to the premiums which foreign countries must necessarily give in order to replenish their gold reserves. True, the Federal Reserve banking system is splendidly adapted to care for such an emergency, but it is also true that just to the extent by which the United States possesses more than its usual share of the world's gold reserve, just to that extent will foreign nations be forced to bid such price for gold as will add to their gold reserves and sustain their national credit.

The price which will be required to take this gold from us will be more than its coinage value; which means that gold, all of the world's gold, will be at a premium. When that time comes gold mining will again be profitable and the great consternation will be with those whose lack of foresight has permitted the gold mining industry to be crushed.

THE WAR MINERALS ACT

It is not often that the editor of the Mining & Scientific Press loses his equilibrium in the discussion of an important public question and this is particularly true as related to subjects strictly within the domain of mining science. Its discussion of the War Minerals Bill, under date of October 19, under the heading "The Government's Duty to the Miner," justifies the suspicion that the editorial was hastily written.

In connection with the chromite situation, so great an over-production has been created in a field of previous great scarcity that many of the chromite producers of the northwest are on the verge of bankruptcy because of the expenditure of great sums of money in the production of chromite for which there is no adequate market. It is true that there was an urgent appeal sent out from Washington to the effect that there was a great shortage of chrome ore and that in response to this appeal, development and production have far exceeded the present demand.

"What would you call those pleading letters and telegrams from the War Industries Board and the Bureau of Mines," asks the Mining & Scientific Press, "if they were not in the nature of contracts?"

As constituted officials of our Government, they spoke for that Government, and they told the miners in plain English "to make haste and produce."

In business, that would be esteemed a "firm order" if it came from a reputable house. . . . The people of the United States are just; they believe in the sanctity of contract, and they do not hold it clever in their representatives to pretend to save a dollar for the Treasury by making the Government play false to its engagements.

We are having a startling illustration of the serpentine beauties of bureaucracy! The method of building an organization for war supplies and from an unpaid personnel of men who represent primarily the interested industries, is wrong in principle. It has provided a camouflage of patriotism for the profiteers. "A man should be paid for the service he renders, and be held accountable to the people for rendering it. Our view of the case is sustained by men of all shades of political faith."

This is how it appears to one prominent committee-man in Washington.

First as to the War Minerals Bill, I agree with you that it has been emasculated until it is of small value. The truth is that it has been killed by the bigger corporations of the country or by men the men who run them. The way this bill has been antagonized by men whom we respect for what they have done in other things, who yet seem to be incapable of divesting themselves of their previous selfish competitive instincts, is grievously disappointing. You know these men as well as I. . . . It is lamentable how the selfish obstruction, first raised at a meeting of a division of The American Mining Congress, subsequently kept alive by one of their men who camped in Washington and attended practically every hearing of the committees on the subject, acting as lobbyist, and cross-examining witnesses followed by the attacks of the now president of the Anaconda Company . . . have caused delay and amendments.

We leave it to others to fight the battles of the wronged food producers; they have their organs, and their difficulties meet with our sympathy because they resemble those of the metal miners whose rights it is our special province to defend, especially prospectors. These build the foundations of the mineral industry, because their work constitutes its beginnings. This time it is the small miner who has been unjustly treated. Unscrupulous men have abused the authority given them, and the result is that financial ruin threatens an army of hard-working prospectors and

miners. This must not be. The Administration is eager to keep its record clean as the champion of democracy, and it dare not allow such injustice, undertaken for the gratification of corporate greed, to stand unrighted.

THE ATTITUDE OF THE AMERICAN MINING CONGRESS

First replying to the criticism of the position of the American Mining Congress in relation to the War Minerals Bill:

The gentleman who is referred to as "camping in Washington" did not speak for, nor pretend to speak for, the American Mining Congress. While it is true that the meeting of western mining men held under the auspices of the Colorado Chapter of the American Mining Congress at Denver, in January, 1918, did not approve the form of the original War Minerals Bill, which provided for the taking over of all mining, smelting and reduction properties and the power to fix prices, yet it can hardly be said that the action justified the statement that "It is lamentable how the selfish obstruction first raised at a meeting of a division of the American Mining Congress . . . caused delay and amendments."

The resolutions adopted after referring to the rare metals and in face of what seemed to be an imperative war need were as follows:

"1. That we favor the encouragement by subsidy, direct and indirect, and in every other way, of the production of such rare metals.

"2. That we favor the stimulation by every possible means of the production of gold and silver.

"3. That we do not favor government control or operation of mines producing gold, silver, copper, lead, zinc, or other metal or mineral unless a shortage should develop therein."

At a later meeting of the Colorado Chapter of the American Mining Congress, held April 2, attended by a large percentage of the rare metal producing interests of that State, it was resolved,

"That the Colorado Chapter of the American Mining Congress and the Colorado Metal Mining Association are in full accord with the purposes of the Ad-

ministration as outlined in the provisions of the bill proposed by the War Minerals Committee to create an administration for the mineral industry, and believes that important and much-desired results may be accomplished thereunder; but they trust that the powers conferred by Section 12 will be so employed as will least disturb established enterprises and existing conditions, particularly those affecting labor."

The Washington office of The American Mining Congress urged the importance of a bill for the stimulation of the production of all of those minerals needed for war purposes, the supply of which had been cut off by taking the ships engaged in importations for foreign service. It urged before the House Committee that this work should be placed under the direction of the Interior Department already equipped, through the Geological Survey and the Bureau of Mines to handle these problems, particularly because these agencies would be looking after the welfare of the mining industry after the war is over and, therefore, that a permanent advantage to the country would come through the handling of these problems through agencies already so engaged.

Before the Senate Committee this office urged the adoption of the bill, first, to supply the present requirements and, second, that in the present high-priced period the development of the nation's rare metal resources should be made in such a way as to create permanent industries. This record does not, in our belief, justify the charge of selfish obstruction.

CHARGE OF ABUSE OF AUTHORITY BY UNSCRUPULOUS MEN, UNFOUNDED

THE MINING CONGRESS JOURNAL is in fairly close touch with the situation in Washington. It does not believe that the wholesale criticism implied in this editorial is either just or fair to those men who are serving the Government without pay and who bring to their work the benefit of long training, successful business experience, and accurate judgment, developed through many years of successful application to the particular

line of work which the Government requires. The fact is, that the Administration of our national affairs staggered and went blind until these men, giving up their personal affairs, came to Washington and devoted more hours daily to their work than had previously been their custom to devote for a week or a month.

The writer has seen much of the work these men are doing; has frequently interviewed them while eating a hasty lunch brought to their desk because of lack of time to leave their work, or perhaps late in the evening after being confined to their desks for twelve or fifteen hours of almost continuous effort. There may be cases where men are engaged in the government service without pay, who "represent primarily the interested industries." There may be cases where "it has provided a camouflage of patriotism for the profiteers."

But if there are such, the MINING CONGRESS JOURNAL does not know of them. It does know that when the Administration undertook to do business through men who did not understand the principles involved, no progress was made. It believes that when appointments to this class of service were made with the apparent intent to shun those who had managed large business enterprises but little was accomplished. With the exception of the Food Administration, no progress was made at all commensurate with the great need of the nation to measure up in proportion to its great wealth and responsibility. It does know that from the moment the responsibility was placed with D. C. Jackling, John D. Ryan, Charles M. Schwab, B. M. Baruch, Pope Yeatman, Seeley W. Mudd, Samuel A. Taylor, David W. Brunton, James B. Neale, Robert Van Arsdale Norris, J. E. Spurr, Hennen Jennings, Albert Burch, C. K. Leith, Francis S. Peabody, Mark L. Requa, and men of that character, from that moment the accomplishment of the Government has brought astonishment to those who, because of the previous experience, were half convinced that democracy was failing under the supreme test. It is unfor-

fortunate that the War Minerals Bill could not have been put into operation at an earlier day in order that direct contracts might have been made for the production of such chromite as the Government needed, rather than an over-production should have resulted, from the belief that an ample market at a higher price would be available to all producers.

HONEST OPPOSITION

"The attack of the new president of the Anaconda Company," seems to be better justified than the writer then believed. Mr. Kelley came before the committee at the request of its chairman, and not voluntarily. He opposed the bill because he believed the principles upon which it rested to be unsound, and expressed his "grave concern to be obliged to take a position that is diametrically opposed" to the proponents of the bill. He asked to be "accorded the same degree of credit for honesty of purpose" as he frankly gave the supporters of the bill. Mr. Kelley's opposition was based upon his belief that the law of supply and demand could be trusted to develop the minerals of the country as rapidly as conditions warrant.

Whatever the merits of the controversy concerning the War Minerals Bill, THE MINING CONGRESS JOURNAL desires to register its emphatic disapproval of the wholesale criticism of the men whom money could not hire, but who are patriotic enough to give to the Government the benefit of their life training through days and nights of tedious, painstaking and for them unusual service.

COAL'S ISOLATION.

About forty representatives of the coal industry—being the directors of the National Coal Association—met in Washington the third week in October. Principally they discussed the approach of the end of the war; what to do to protect themselves from the impending smash; and the probable future.

It is understood that the crux of their deliberations was that it is unfair to the trade to keep an iron hand on its head during the war and then put no hand

under its feet when the war and the demand for coal collapse together.

As to whether to invite the Fuel Administration to remain a force—for a short time only—they were at first undecided, but finally agreed that it would be of no avail unless a minimum price on coal were a condition precedent to the continuance of the Fuel Administration.

As a safety valve for the coal trade, it was proposed that an export pool be organized to conduct foreign trade, its powers being outlined by the Webb-Pomerene bill.

The fact of this decision is not important. The subject matter is not under debate. The one thing which strikes one as a little off key is the aloofness and isolation of the coal industry. It is trying to solve the problem working alone and without consulting with other industries. It has kept aloof even from men in the same line, in recent years especially.

By way of contrast, something like 500 industries—or their branches—are affiliated with the Chamber of Commerce of the United States. Their representatives will be at the meeting of the reconstruction conference in Atlantic City on December 4, 5 and 6. They are going to assail the whole question of reconstruction as business in the mass. These industries believe that only in such union is there safety.

The coal industry proposes to go it alone. It has started to go it alone.

Coal men have always been timid. In industry, they have—maybe a contributing cause is that they lack leaders—never commanded respect for the character of their decisions. Their profits do not show that they have proved themselves super business men. Yet, facing the tremendous questions which are involved in reconstruction and facing the realization that their product is the foundation for all other industry, they persist in attacking this great question alone.

One may admire their courage. When commenting on their wisdom, he may be forced into a discreet silence.

One thing is obvious. If, taking this isolated position, coal men are bested by

the politicians and deserted by the other business men whom they now ignore, they will have no one to blame for their plight but themselves.

THE CHROMITE SITUATION

In the early part of 1918 the shortage of ship bottoms for carrying on our suddenly expanded military program became acute, and as an emergency measure the President issued a proclamation which had as its ultimate object the restriction of imports to the barely necessary amounts and diverting the shipping thus saved to urgent war purposes. The task of outlining programs for restriction of imports was delegated to the Shipping Board and Mr. Hurley, who appointed Dr. E. F. Gay to formulate these programs, and Dr. Gay was made a member of the War Trade Board, so that the programs would be carried out under the combined authority of both boards. For the programs of restricted mineral imports Dr. Gay appointed C. K. Leith and J. E. Spurr to form the Committee on Mineral Imports. To this committee Pope Yeatman was added, representing the War Industries Board. One of the problems taken up was that of restricting the importation of chromite from far distant points, such as New Caledonia. A study of the situation was made which involved full conferences with the chromite consumers and the chromite producers, including those of California and Oregon. In 1917 the consumption of chromite in the United States was 127,000 tons of the equivalent of 50 per cent ore, and the consumers advised that the 1918 consumption would be greater. The domestic production in 1917 was 36,552 tons, with 11,407 tons imported from Canada, and no production from Cuba or Brazil.

Investigations of waste of chromite were made by the Committee on Mineral Imports, with the cooperation of the Interior Department, and the conclusion was reached that if proper conservation measures were taken the consumption for 1918 might be reduced to 130,000 tons. It was the consensus of opinion

among the producers that with the proper stimulation the domestic supply for 1918 might be raised to 50,000 tons (on the 50 per cent Cr_2O_3 basis) and the Canadian supply to 15,000 tons, while investigation of the possibilities of Cuba and Brazil led to the belief that from these countries might be obtained approximately 4,000 tons and 22,500 tons respectively (on 50 per cent Cr_2O_3 basis). The consumers finally agreed to this program tentatively and the steel-makers agreed to put into operation the experiment of conservation. The principal consumers advised that they would take all the domestic chromite which could be produced, at a good figure, and so advertised publicly, and the government organizations in Washington urged an increase of chromite production in the United States, the universal agreement being that the maximum supply could not exceed the demand. Within a short time, under the stimulus and encouragement of high prices, the production of chromite in California and Oregon assumed absolutely unexpected proportions, new deposits being discovered, especially in Siskiyou County, California. The conservation programs also resulted in enormous savings, the use of chromite as a refractory in steel-making being practically eliminated, with a result that the estimated total consumption for 1918 is about 95,000 tons of 50 per cent chromite, as compared with 127,000 tons in 1917. This unexpected great increase of supply and shrinkage of consumption brought about a condition of oversupply. Somewhat contributing to this was a technical loop-hole in the restriction program. As originally recommended by the Committee on Mineral Imports no exception was to be made to the program on the basis of ballast, or back-haul, but the War Trade Board ruled that these exceptions might be admitted at the discretion of the Ship Control Committee in New York, without referring specific cases back to the War Boards. That is, where a ship coming from New Caledonia needed ballast on account of having a very light main cargo, it might use chromite as ballast instead of taking on rock ballast. Through this loop-hole

more chromite was brought in from New Caledonia than was expected.

It results that the present situation is that we have no further shortage of chromite to anticipate if things are handled with reasonable judgment. Chromite producers were notified some time ago by the Government that it was not encouraging further development, which is indeed the case with manganese and pyrite, for example. Nevertheless certain producers had gone to heavy expense in the way of equipment and installation and were dismayed at the prospect of not being able to get back their investment. The Geological Survey and the Bureau of Mines have strongly represented to the War Industries Board that the Government should protect the investment of these people, so that they should get their money back, and so bring about the transition from a condition of scarcity to a condition of abundance, and from a period of high prices to a period of lower prices, without serious financial disaster to those who embarked on large enterprises upon government representations. The chairman of the War Industries Board has expressed himself emphatically as strongly in favor of this program, and the question is only as to how to put it into effect. It was believed that this could be done through the Mineral Act, but the legal counsel of the War Industries Board was of the opinion that it could not be taken up under this act, on the ground that there exists at present no shortage in chromite. However, the Bureau of Mines has requested the opinion in this matter of Judge Curtis H. Lindley, of San Francisco, and he is of the opinion that it is entirely within the power of the President to take up the chromite question under this Mineral Act if he so decides.

CUSHING COMMENTS ON COAL AND FUEL ADMINISTERING

By GEO. H. CUSHING

With the war ending because nobody in Europe wants to take on a new fight with a fresh country like the United States, it is a little late to talk about what has been done in coal by adopting the right methods. For the influence it may have on the

future, it might be well to record one fact.

When the coal shortage came—long after America was morally at war with Germany but long before we admitted it—the coal men hit the nail on the head when they said:

"The only known cure for a coal shortage is more coal. With prices up because of a coal shortage, the way to bring them down is to end the coal shortage by producing more coal."

It wasn't good business for the coal men to give this candid advice to the nation. If, at heart, they were profiteers they might have kept their mouths shut; allowed the coal shortage to remain, and reaped the golden harvest to the end.

If Mr. Peabody had been the thoroughly bad citizen that the politicians painted him as being, he would never have organized a committee to expedite production and thus end his chances for making a million a year and board.

The fact is that the coal men advised a studied effort to produce more coal, and Mr. Peabody organized a committee which did it. So you can draw your own conclusions as to what sort of fellows they are. The record says they were good citizens but bad business men. In that, at least, they were consistent as a record of the coal industry for 100 years will prove. They made this country rich on cheap power made from cheap coal. Yet, the rich country is the only monument they have ever been able to leave. Most of them were buried without headstones because the granite man insisted upon cash and would not take a coal mine as security for the slab.

But that is wandering. The cure for a coal shortage was more coal. It took the Fuel Administration nine months to learn what even a dull boy in school will get before the morning recess. Then the whole thing dawned upon Washington like an inspiration. It appointed a committee.

Meanwhile the country suffered the tortures of those who pass into purgatory with no one left behind to speak an influential word to the priest.

Now the record stands thus: From January 1, 1918, to November 1, 1918, the increase in coal production has been 34,000,000 tons over the record of 1917.

But, from July 1, 1918, to November 1, 1918, the production increased 24,000,000 tons.

That is, in six months without a production committee, the output increased 10,000,000 tons. In four months following, with a production committee output increased 24,000,000 tons.

Mr. James B. Neale, the head of the production committee, did in four months what the whole Fuel Administration—including Mr. Noyes with his saving a "million tons a minute" by new schemes

—had been unable to do in ten; he ended the coal shortage in America, war or no war. The reason for this statement at this time is apparent. The coal market is soft. If peace comes it will be mushy. Those who speak without figures will say that the war ended the coal shortage. The figures prove that Mr. Neale did it.

Incidentally, the people helped some. They took in coal in summer, which they had never done. The fact is that some cities—Philadelphia is an example—did 65 per cent of their retail coal business in the summer months. The retail business for this year has been done. This is going to teach the coal men something—principally that the time to sell watermelons is in summer and the time to sell domestic coal is in the winter. Some coal men have been pleading for years for an equal monthly production of coal. They, somehow, imagined that this would steady the market and increase the consumption. The fact which is now brought out is that all it will do will be to make the coal business as unprofitable twelve months in the year as in normal times it is in the off season. As a practical matter of fact, the retailers are now out of business until this time next fall. They will have a year to reflect on equal monthly installments in the coal business—and to eat up the fat they have accumulated since 1916.

Speaking of the Fuel Administration, one always thinks of the fertile Mr. Noyes (P. B. Noyes, sometimes called "Pretty Big" Noyes). In the same week that the President read the Republican congressmen out of the Society of the Patriotic Sons of America, Mr. Noyes quit Mr. Garfield's right hand to go on a stumping tour of New York State in the interest of the Democratic Party.

Practical professional politics got pretty close to the coal trade in those two events. Especially is this true when there is added the fact that the Subcommittee on Manufactures of the United States Senate decided to reopen its inquiry into the coal case. The avowed purpose of the latter movement sounds just a little strange at a distance of a thousand miles from Washington. The open accusation is that the Fuel Administration is being run by the coal men. At the same time, it is admitted that those coal men got out the coal which ended the shortage and started coal prices tumbling all over the nation.

One wonders whether the Senate Committee has become so accustomed to the coal shortage it will feel lonesome without it, and wants to put the old gang back in power, over behind the New Interior Building, so that we may again feel comfortable with a coal shortage in our midst.

Or, is the Senate Committee merely working for the circulation department of the New York World by allowing that sprightly

organ to say that it has enough power in the Senate to start an investigation of coal.

Changing the subject again, slightly, one feels impelled to say a good word for the Fuel Administration. Its maternal instinct is strongly developed. It reminds one—with reversed English—of a woman in Kenilworth, Ill. She is blessed with a son and encumbered with a husband. Really, the only thing against the husband, as far as she is concerned, is that he has persisted for years in working for a large corporation. His job is steady—perhaps too steady at times. His prospects depend entirely on the age of his superiors or a fortunate visit to them of the influenza and pneumonia running in double harness.

The boy is a different sort. He has spirit, imagination and ingenuity. He has a chance to win if he gets a broad running start. The woman's trouble is summed up in:

"If my husband has to wait for some one to die to win in a big corporation and if that big corporation has only a small share of the total business in its line, what chance will my son have if the Government takes over everything? It would take an earthquake, black cholera, bubonic plague and yellow fever to put the boy in a position where he could support a family."

The Fuel Administration looks at this same picture from the other side. It says:

"We have coaxed the retailers to buy coal. They did. Now the war is ending. They bought it at a high price. The price is going down. They will lose money."

"Also, the steam users have bought coal. They likewise will lose money. Perhaps we had better hang on to our job until we can make good."

That is either the maternal instinct, or the Fuel Administration likes the job of running coal. Having interfered with the law of supply and demand in the clouds, it wants to try to do the same thing in the subway. They will probably find that the people are romantically interested in aviation but not at all in the habits of angleworms and moles.

In this ambition, the Fuel Administration is not lonesome. There are many permanent boards in Washington which would cherish the opportunity to become the residuary legatee of the Fuel Administration. There is the cherished, but innocuous Department of Commerce, for example.

Two years ago, it might have saved all the political outbreak over coal if it had invited the coal men and the railroad men to work together with it to get more coal.

A year ago it might have undertaken to collect information about coal production costs and saved the annoyance of that long debate over coal prices.

This summer, it might have supplied data on the cost of living in the coal fields and

ended a disgraceful dispute over that subject as a basis for the wages of miners. It did nothing of the sort. Evidently too much work was involved.

Now, however, when the work has all been done, it wants to assume the function of continuing the zones on coal and the matter of allocation.

The Bureau of Mines would like to take over the fuel conservation department of the Fuel Administration. There is some justification for that since it is scientific work and since the bureau is that sort of an organization.

What the ambitions of the Federal Trade Commission are has not been told. Maybe that bureau is in the same position as the gentleman who was returning home late one night and was resting against the proverbial lamp post, when a friend across the street called to him to "come on over."

"Come here yourself," was the reply. "I'm having trouble to stay where I am."

One little fact is coal will, perhaps, throw some additional light on the obvious truth that this has been a war of transportation facilities.

A month or so ago, General Pershing cabled to the United States that he wanted 900,000 tons of coal a month until further notice. The coal was here to be shipped, but there were no ships that could be spared to carry it over.

This last week, the report comes that rather than spare the ships, England is undertaking to supply the American Expeditionary Force with 600,000 tons a month. To do it England will use no coal to heat railway stations or cars this winter and will effect other home economies. And this with an abundance of coal in the United States. It has been truly a war of transportation facilities. The failure of the submarine was the destruction of Germany.

BUREAU OF MINES URGES THAT CRUDE OIL SUPPLY BE INCREASED

The Bureau of Mines has submitted, along with much other data, the following information in response to S. Res. 301, which reads as follows:

"Resolved, That the Bureau of Mines be directed to send to the Senate any information in their possession in regard to the production and consumption of crude petroleum and other mineral oils in this country, and the amount required for export and the estimated stocks on hand at the present time."

Statistics on the production and consumption of crude petroleum are collected by the United States Geological Survey, whereas the Bureau of Mines collects reports on the monthly production and stocks on hand of petroleum products. Such statistics, unfortunately, are not available prior to January,

1917, and estimates must suffice for August of this year.

The bureau's method of determining the production and the storage of refined products is by requesting the refiners of the country to submit individual reports each month. These reports show the amount of crude oil run to the stills, the partly refined oils, rerun, and the casing-head gasoline used for blending purposes. In addition, the monthly output and the stocks on hand of the following products are given: Gasoline, kerosene, gas and fuel oils, lubricating oils, paraffin wax, petroleum, coke, asphaltum, and miscellaneous oils.

The increase in the consumption of crude oil by refineries is as follows:

	Barrels.
Daily average 1917.....	863,374
Daily average first seven months 1918	874,964
Increase	11,590
Daily average of July, 1918.....	940,991
Increase over 1917.....	77,617

The following tabulation shows the changes in stocks of the principal refined products, excepting gasoline, from January 1 to August 1, 1918:

Kerosene, barrels.....	127,744 (decrease)
Gas and fuel oils, barrels	737,882 (decrease)
Lubricating oils, barrels	171,878 (decrease)
Paraffine wax, pounds	21,790,190 (decrease)

Consumption of gasoline is seasonal; that is, the demand is greater during the summer months, when motoring is in vogue, whereas during the bad weather of the winter months consumption falls off greatly. Just the opposite is true with the amount of gasoline stored. For instance, during the summer months of 1917 storage was at a minimum and the maximum was reached at the end of March, 1918.

Statistics are not available for the consumption, production, and stocks of gasoline for the month of August, but it is estimated that the consumption will about equal that of July, so that the stocks on hand at the end of August, 1918, probably were between 6,000,000 and 7,000,000 barrels.

In normal times such a discrepancy between production and consumption during the summer months would need cause no undue consternation for sufficient gasoline would be stored during the winter months to more than overbalance the heavy summer demand. At the present time, however, conditions are abnormal, and it is very difficult to forecast the future. The domestic demand for gasoline during the coming winter will likely be greatly reduced because of the falling off in automobile production and the necessity of economy among the people. On the other hand, our war demand for gasoline, both at

home and abroad, probably will be tremendous, especially with the advent of spring, so that the situation really is serious, but not so much because of the present shortage as because of the forthcoming shortage of next year. We are not now producing enough crude oil to supply our refineries; gasoline stocks have been reduced to a two or three weeks' supply, and although the present situation has been well taken care of by the Fuel Administration, we are facing a tremendous demand next spring, and a demand as inflexible as it is great, for we must have adequate supplies of gasoline for our overseas forces and for those of our allies.

The need for conservation is apparent, and the American people should voluntarily forego the pleasure of needless automobile touring during these times. Such voluntarily conservation now may prevent the necessity of more serious action later. Furthermore, every step should be taken by the people and by their representatives not only to conserve our present supply of gasoline but also, if possible, to increase our future supply and the supply of the crude oil from which gasoline is made.

INCREASED STORAGE AUTHORIZED BY FUEL ADMINISTRATION

Increased storage of bituminous coal by consumers was authorized October 17 in regulations issued by the United States Fuel Administration.

All classes of consumers, except Class 1, as defined by the War Industries Board, were authorized to increase their reserve stocks, and those heretofore not on the preference list were authorized to lay in additional reserve supplies. Consumers in Class 2 may store their coal up to the limits now imposed on Class 1. Consumers heretofore in Class 3 will receive the facilities heretofore accorded to Class 2, and consumers in Class 4 have been allotted the opportunities heretofore reserved for Class 3. Consumers on the preference list are allowed the stocks formerly permitted Class 4 concerns.

The regulations, it was announced, will stand until further notice, and it was stated that, under them, an opportunity is afforded every industrial consumer for laying in at this time some reserve supply of bituminous coal.

Regulations in detail are as follows:

CONSUMERS IN CLASSES 1 AND 2

Maine, 135 days; Massachusetts, Vermont, New Hampshire, Northern New York, 105 days; Connecticut, Rhode Island, Southwestern New York, 90 days; Southeastern New York and New Jersey, 60 days; Delaware, Eastern Pennsylvania, Maryland, District of Columbia, Virginia, North Carolina, South Carolina, Georgia, Florida and Western Ohio, 45 days; Western Pennsylvania, West Vir-

ginia, Eastern Kentucky, Eastern Ohio, 35 days; Lower Michigan 90 days.

CONSUMERS IN CLASS 3

Maine, 120 days; Massachusetts, Vermont, New Hampshire, Northern New York, 90 days.

Connecticut, Rhode Island, Southwestern New York, 75 days.

Southeastern New York and New Jersey, 30 days.

Delaware, Eastern Pennsylvania, Maryland, District of Columbia, Virginia, North Carolina, South Carolina, Georgia, Florida, Western Ohio, 40 days.

Western Pennsylvania, West Virginia, Eastern Kentucky and Eastern Ohio, 30 days.

Lower Michigan, 75 days.

CONSUMERS IN CLASS 4

Maine, 105 days.

Massachusetts, Vermont, New Hampshire, Northern New York, 75 days.

Connecticut, Rhode Island, Southwestern New York, 60 days.

Southeastern New York and New Jersey, 40 days.

Delaware, Eastern Pennsylvania, Maryland, District of Columbia, North Carolina, South Carolina, Georgia, Virginia, Florida, Western Ohio, 35 days.

Western Pennsylvania, West Virginia, Eastern Kentucky and Eastern Ohio, 25 days.

Lower Michigan, 60 days.

CONSUMERS NOT ON THE PREFERENCE LIST ARE LIMITED TO THE FOLLOWING STOCKS:

Maine, 90 days.

Massachusetts, Vermont, New Hampshire and Northern New York, 60 days.

Connecticut, Rhode Island, Southwestern New York, 45 days.

Southeastern New York and New Jersey, 30 days.

Delaware, Eastern Pennsylvania, Maryland, District of Columbia, Virginia, North Carolina, South Carolina, Georgia, Florida, and Western Ohio, 30 days.

Western Pennsylvania, West Virginia, Eastern Kentucky and Eastern Ohio, 20 days.

Lower Michigan, 45 days.

There is no restriction on the stocks of screenings which may be accumulated by either preference or non-preference consumers; nor is there any restriction on the stocks of Indiana, Illinois, or western coal which consumers in any class may obtain.

Supervision of the accumulation of stocks in accordance with these limits will be exercised by the several state fuel administrators, who are authorized to make exceptions where special conditions make it necessary.

NEW SULPHURIC ACID PLANTS TO COST OVER \$3,000,000

Two sulphuric acid plants are to be erected in Pennsylvania under the supervision of the Construction Division of the Army. The estimated cost for both plants is \$3,000,000.

One plant will be located at Emporium, while the other will be erected at Mt. Union.

The Emporium plant will consist of eight units on a site which has been selected upon Driftwood Creek, close to the plants of the Aetna Explosive Company and the Emporium Iron Company. In the event that sufficient power cannot be obtained from the plant of the iron company, a one thousand kilowatt power plant will be erected. The estimated cost of this plant is \$2,000,000.

The Mt. Union plant will be erected adjacent to the plant of the Aetna Explosive Company. Twenty acres of land have been purchased at \$56 an acre. The contract has been awarded to the Leonard Construction Company. The preparation of all plans and specifications, in addition to the supervision of the work, will be under the direction of the Construction Division.

These plants will be operated by the Government.

No More Coal Distributors' Licenses

The United States Fuel Administration has announced that pending an investigation into the fact that the number of coal and coke distributors has increased almost 200 per cent in the last seven months, no additional licenses to distribute coal and coke will be issued.

It is believed that many of those who have embarked in the business of distributing coal and coke since the adoption of the purchasing agent's commission plan last March, contribute neither skill, experience nor anything else of value to the distribution of coal and coke in a manner necessary to the successful prosecution of the war.

To Save 1,500,000 Tons of Coal

As a war measure, effecting an annual saving of 1,500,000 tons of coal, the United States Fuel Administration anticipates that the skip-stop system for street cars will be in operation throughout the nation by September 15.

Realizing that this is a war of steel and that not a single ton of raw steel can be produced and transported without 5 tons of coal, and that the production of steel for guns and ammunition to bring a swift and victorious end to the war now waits on the supply of coal to steel plants, the United States Fuel Administration is assured that every citizen who is a car user will desire to use his influence to effect the largest possible aggregate saving.

WORK SUNDAYS TO OVERCOME LOSS OF OUTPUT FROM INFLUENZA

"Miners of the central Pennsylvania bituminous coal fields, numbering over 70,000, are coming to the aid of the Government, and have voted to work Sundays in an effort to get out the regular amount of fuel from that district in the face of the influenza epidemic, now affecting many mines," was the substance of a statement made by Charles O'Neill, district production manager, following the receipt of reports from more than 900 mines in this territory. It shows that the fathers and the brothers of the fighting men in France are going to do more than their duty in an effort to make certain the prompt and regular manufacture and shipment of supplies and munitions.

From all parts of the district telegrams and telephone messages came, telling of Sunday work by the miners, who volunteered, following the receipt of telegraphic requests, for such service. In those districts where no Sunday work was done the men decided to work from nine to ten hours, instead of eight hours, three or four days each week and two days with regular hours, that the output might be increased. Mines in which the epidemic is prevalent worked with reduced numbers of miners, although several districts, notably the Clearfield near DuBois, portions of Indiana, Jefferson, Clarion and Cambria, were obliged to suspend operations entirely early in the week.

"Conditions are now becoming serious as a result of the reduction in tonnage from central Pennsylvania," reads the statement of Mr. O'Neill. "Our coal field is the most important in the United States at the present moment. We must not falter at this time."

"For the week ended September 28 central Pennsylvania produced 1,306,408 tons," reads the statement. "Since then we have been losing tonnage owing to the influenza. For the week ended October 5 we produced 1,203,942 tons, or a loss of 102,430 tons, compared with the previous week; for the week ended October 12 we produced 1,234,337 tons, or a loss of 72,071 tons compared with the week of September 28, making a total shortage of 174,537 tons to October 12."

WAGES ARE READJUSTED IN THE ANTHRACITE FIELD

A readjustment of wages in anthracite coal fields in accordance with the stabilization of wages in various competing industries has been effected. The readjustment carries a wage increase along lines agreed upon by miners and operators and effects 150,000 miners.

INFLUENZA EPIDEMIC REFLECTED IN BITUMINOUS COAL PRODUCTION

The influenza epidemic not only cut the production of bituminous coal 800,000 tons for the week ended October 19, or 6.7 per cent, but reports also show that it caused a decrease in shipments from all fields with the exception of Western Pennsylvania.

Estimates furnished to the W. S. Fuel Administration by the Geological Survey, place production at 11,523,000 net tons, reaching the low level of last May, as compared with 12,338,000 net tons produced during the week ended October 12, and, while below the former week's production, it exceeded the figures during the corresponding week of 1917 by 1,300,000 tons, or 12.3 per cent. The average daily production was estimated at 1,920,000 tons, as compared with 2,056,000 net tons during the week preceding, and as against 1,702,000 net tons during the week of October 19, 1917.

The average daily production for the coal year to date is estimated at 1,992,000 net tons, which is slightly below requirements, and in order to make up the deficit, it is necessary that daily production during the balance of the coal year should be equivalent to 2,039,100 net tons, or 2.4 per cent in excess of the average daily production to date.

The influenza epidemic also caused considerable loss in the anthracite fields and production during the week ended October 19, estimated at 1,715,000 net tons, which is a decrease of 240,000 net tons, or 12.3 per cent, compared with the week of October 12. The daily average during the week is estimated at 286,000 net tons, as compared with 326,000 net tons during the preceding week, and as against 335,000 net tons during the coal year to date. The total production for the period of April 1 to October 19 is estimated at 57,373 net tons, compared with 56,736 net tons for the same period last year.

During the week ended October 12 the total loss by all causes from 100 per cent production was 18 per cent, of which car shortage comprised 7.9 per cent, labor shortage 6.3 per cent, mine disability 2.8 per cent, and all other causes 1 per cent.

WAR MINERALS ACT NOW IN FORCE—PROCLAMATION SOON

President Wilson signed the War Minerals Bill, October 4. The proclamation, which will assign matters of jurisdiction, probably will have been issued before this issue reaches the public.

ONE TON OF COAL

Will make 20,000 cartridges.
Will make 400 bayonets.
Will make 250 helmets.
Will make one-fourth ton of steel.
Will generate 200 kilowatt hours of electricity.
Will carry 15,000 soldiers in one ship 2 miles at sea.
Will move 50 freight cars 50 miles.
Will build 2-ton capacity of a ship.
Will land big shells at a given point in the German line for only one-half of a minute.
Will keep an artillery fight going for a fraction of a minute, if fighting is as severe as at Verdun, where the French, in about seven months, fired 60,000,000 shells, which means about 1,800,000 tons of steel, or about 9,000,000 tons of coal for their manufacture and transportation.
Will go half way toward putting an American fighting man across the sea into France ready for business.
Will make 1,400 to 1,500 pounds of coke and the following by-products:
6,200 cubic feet of gas.
23 pounds of ammonium sulphate.
6 gallons of tar.
2 gallons of benzol.
4-10 gallons toluol, for TNT.
Drugs of many kinds.
Disinfectants.
Chemicals.
Explosives.
9,760 tons of coal will gather the materials and build an 8,000-ton ship.
Every ton of coal brings peace nearer.

To Push Coke Production

W. S. Blauvelt, director of the Bureau of Coke, United States Fuel Administration, has been appointed a member of the Production Committee, working under James B. Neale, Director of Production. Mr. Blauvelt's special duties will be in the line of increasing and maintaining the production of coke.

Special emphasis has been laid on the necessity for a large and steady coke output by the Production Committee. Coke production has been running about 30,000 tons weekly below the minimum required for the government program, and both operators and coke workers have been asked to cooperate toward overcoming the deficit. Additional labor in the coke yards and 100 per cent efficiency on the part of coke workers and executives are relied upon to make up the shortage.

DOMESTIC CONSUMERS HAVE MORE COAL THAN EVER BEFORE

**Dr. Garfield, in Formal Statement, Reviews
the Coal Outlook for the Winter—Zone
Plan Eliminates Cross Hauling**

The coming winter's fuel situation as regards the people of the United States is outlined in a statement by Harry A. Garfield, United States Fuel Administrator. The statement presents statistics showing the relative production of fuel as compared with previous years and the conclusions warranted from these figures. Among its findings are the following:

The nation's fuel supplies, assembled in preparation for an unusually severe winter are adequate, and well distributed.

Continued full and loyal cooperation from the public in conservation, and from all producing and distributing agencies is necessary.

The coal stocks on hand are greater than ever before; the needs also are greater than at any previous time.

In coal deliveries, the fuel program to date of the Administration has been exceeded through the cooperation of the public, the mine workers and operators, the Railroad Administration, the War Industries Board and other agencies.

More domestic coal is now in the hands of consumers and dealers than at the corresponding period in normal years.

By a zoning system coal has been supplied throughout the country from the nearest available mines, eliminating cross-hauling and tremendously facilitating distribution.

For the country at large there is an average coal supply in stock sufficient for eight weeks. Points furthest from the mines have been supplied with the greatest quantities. The Upper Great Lakes districts, where winter cuts most deeply into transportation, has received the greatest proportionate supply, and points nearer to mines are now being cared for.

Fewer mine workers than ever before have produced 38,000,000 tons more of coal in the first six months of the present coal year than were produced in the corresponding period last year.

Had less essential industries been permitted to operate without curtailment of fuel supply the available stocks would have been seriously reduced.

The oil and natural gas situation will probably be somewhat acute because of the steadily increasing domestic and overseas demand for oil and a decrease in the production of natural gas. The oil problem is largely one of transportation.

The present coke supply is slightly less than the maximum demand of blast furnaces and war industries.

"The Fuel Administration approaches the winter season well organized, with stocks of coal on hand far in excess of the stocks of other years," the report says. "We are ready for an unusually severe winter, but we are still and shall continue to be dependent upon the cooperation of the people of the United States in conserving fuel and upon the several agencies concerned in the production and transportation of fuel to enable us to carry through our program to the end of the year."

"The people of the United States have demonstrated their willingness to make any sacrifice necessary, but they must be satisfied that what is asked is necessary and reasonable. The highest testimony to democracy has been furnished by the way in which the people of the United States have met the requests of the Food and Fuel Administrations, even when those requests have imposed upon them personal inconvenience and sacrifice."

The full statement is as follows:

"By the United States Fuel Administrator, Harry A. Garfield.

As winter approaches, the people of the United States desire to know what they may expect from the Fuel Administration, and they have a right to know. The experiences of last winter, naturally, tend to make people apprehensive. While it is not likely that the coming season will be as severe as last, the Fuel Administration has proceeded on the assumption that it might be and has made its plans accordingly. The following are the facts presented in briefest form.

First, as to domestic fuel. Anthracite (hard) coal is the domestic fuel of the East. Hard coal all comes from Eastern Pennsylvania. To prevent long hauls and unnecessary use of railroad locomotives and cars for the transportation of coal, the country has been zoned. The Railroad and Fuel Administrations have united in setting up the zones. In a general way, coal must be taken from the nearest fields, although certain kinds of coal necessary for special manufacturing purposes cannot be thus limited. The result of this arrangement is that people nearest (radius hard to define) the anthracite coal fields and all of the distant New England points are to burn hard coal. This happens not to be regarded as a hardship. But even if it were, this rule would have to be enforced. Also, because of the possibility of transporting coal by water to upper lake ports, a considerable part of the northwest is supplied with anthracite, while the allotment to certain other states has been cut down to a fraction only of the normal supply, the balance being made up with bituminous (soft) coal.

The program of distribution of domestic coal for the entire year calls for 51,258,029 tons (this includes coal for manufacturing

and for gas—about 5 million tons in all) of anthracite coal which is 2,062,323 tons more than were distributed during 1916. (1916 was the last normal year for coal distribution. It was, therefore, taken as the basis in making the allotment for 1918.) Up to the first of October 26, 388,151 tons had been delivered. (In the northwest the coal has either been delivered or is en route.) The following schedule tells the story in brief:

States.	Allotment for the year in tons.	Delivered October 1.
New England.....	10,331,000	5,537,779
Middle Atlantic....	31,314,754	15,246,331
Virginia	102,400	73,640
Western	3,481,945	1,835,398
Northwestern	2,374,000	*1,701,561
Canada	3,602,000	1,963,700
Export (principally Newfoundland and Cuba)	51,930	29,742
Total.....	51,258,029	26,388,151
Allotment for half year	25,629,014	

*The coal for the Northwestern district has either been distributed or is enroute.

It will thus be seen that to October 1st the Fuel Administration had exceeded its program of deliveries by 759,136 tons.

But some dealers have found themselves without a supply of anthracite and this has inconvenienced a great many people. This was due to the fact that some dealers had moved, others had started in business this year, while still others, some because of a break in trade relations and others because their credit was not good, had not received their usual supply. This difficulty has, however, largely been overcome, so far as communities, if not individual dealers, are concerned.

Under the arrangement now in existence if any domestic consumer finds himself short of coal, he should apply to his local Fuel Administrator, giving him the name of the dealer to whom he has applied and the circumstances of his case. The local Administrator will present the matter to the State Fuel Administrator who will issue the necessary directions to the Anthracite Distribution Committee.

Second, as to bituminous coal.

While anthracite is the domestic fuel of the east, the rest of the country depends upon bituminous coal. About 75,000,000 tons of bituminous coal are used annually by domestic consumers, including apartment houses, but not including coal used for making gas and electricity. The facts as to supply are given below in connection with the industrial use of bituminous coal. I need say here only in brief that the several parts of the country are now well supplied with bituminous coal for domestic use. It must not,

however, be understood that domestic users can afford to waste either hard or soft coal. Rigid economy is necessary. If the instructions issued from time to time by the Fuel Administration for the care of furnaces and the heating and ventilation of houses are followed, we shall come through the winter without hardship.

Again, let me call attention to the fact that more domestic coal is now in the hands of consumers and dealers than at the corresponding period in normal years.

Industry is chiefly dependent upon soft coal. Therefore, its consumption has been much more largely increased by the war than the consumption of hard coal. The following schedule tells the story of increased production of soft coal since 1913:

PRODUCTION OF BITUMINOUS COAL IN THE U. S.

Year.	Short tons.	Increase over previous year, tons. (decrease)
1913	478,435,297	
1914	422,703,970	55,731,327
1915	442,624,426	19,920,456
1916	502,519,682	59,895,256
1917	551,790,563	49,270,881
1918	600,000,000*	*48,000,000

Increase 1918 over 1913—122,000,000 (approx.)

*Estimated.

The enormous increase for the present year has been made possible by cordial cooperation between the three agencies involved, namely, the mine workers and operators, the Railroad Administration and the Fuel Administration. What is our situation today? The coal year begins April 1st. During the first six months, to October 1st, we had produced 37,000,000 tons bituminous more than we produced in the corresponding period last year. By produced I mean placed in railroad cars and delivered either as coal or coke. Coal is not produced in any commercial sense until it has been dug from the mine and delivered on board railroad cars.

What the public wishes to know is whether this coal is being distributed in a way to meet the needs of the country and whether we have been far-sighted enough to stock coal against the winter needs.

The important item here is how much coal have we managed to store up. Briefly, the answer is more than ever before. Taking the country as a whole, we have in stock coal sufficient for eight weeks. Obviously stock piles must be greatest at points farthest from the mines.

Never until the present year has an attempt been made to ascertain the stocks on hand. The Statistical Bureau of the Fuel Administration receives a weekly postcard report from each of the great and most of the small industrial plants and coal dealers of the country. Tens of thou-

sands, of small manufacturing establishments are included in the weekly returns of public utilities supplying them with power and light. Each card states the amount of coal on hand at the beginning of the week, the amount received and the amount used during the week and the balance on hand at the end of the week. Over an average of more than ten thousand cards are received and tabulated daily. Errors and omissions are diligently followed up. Final tabulation of these reports are, at the outside, only six weeks behind. The following schedule tells the story of requirements for the year, the deliveries for the first six months; and the stocks on hand in the several States.

	Net tons.
Total estimated requirements of bituminous coal—April 1 to September 30, 1918, without allowance for conservation or curtailment of industry	361,730,000
Production of bituminous coal—April 1 to September 30, 1918	312,282,000

Number of weeks' stocks of bituminous coal on hand, October 1, of industrial, public utilities and coal dealers:

States.	No. of Weeks.
Alabama	2
Arkansas	10
Arizona	4
California	6
Colorado	4
Connecticut	17
Delaware	10
Florida	10
Georgia	6
Idaho	5
Illinois	6
Indiana	5
Iowa	6
Kansas	5
Kentucky	3
Louisiana	7
Maine	17
Maryland	5
Massachusetts	19
Michigan (upper peninsula)	20
Michigan (lower peninsula)	12
Minnesota	20
Mississippi	8
Missouri	6
Montana	5
Nebraska	4
Nevada	15
New Hampshire	18
New Jersey	10
New Mexico	4
New York	6
North Carolina	5

North Dakota	11
Ohio	6
Oklahoma	9
Oregon	3
Pennsylvania	7
Rhode Island	12
South Carolina	8
South Dakota	7
Tennessee	3
Texas	4
Utah	4
Vermont	15
Virginia	4
Washington	4
West Virginia	4
Wisconsin	9
Wyoming	5

Note:—The upper peninsula of Michigan, and the States of Wisconsin and Minnesota and, in part, North Dakota and South Dakota, have their winter supply of coal assured through the movement of coal to the head of the Lakes, which is moving forward on schedule.

Stocks on hand for each State are reported by industries so classified as to enable me to know whether, for example, the stocks of by-product coal is sufficiently large to meet beyond peradventure the steel requirements of the War Industries Board. In this connection, it is interesting to know that the stocks of coal for by-product coke ovens average four weeks, ranging from one week at points in the coal fields to fifteen weeks' supply for by-product ovens at the most distant points, such as at Duluth and Superior.

Although accurate statistics have never been taken until this year, manufacturers agree that never before have we had larger stocks of coal on hand at the beginning of winter.

The clean coal campaign, inaugurated to relieve users of bituminous coal from the handicap they suffered last winter in the use of improperly graded or entirely unprepared coal, is being rigidly prosecuted. During the week ending October 26, thirteen mines were ordered to cease shipping. Prior to that time, eighty-six mines had been closed; sixty-seven because the producers would not properly prepare their coal for shipment, and nineteen because the coal produced was entirely unusable. In addition to these mines closed, several hundred mines have been ordered to cease taking coal from poor veins.

Since the advent of the Fuel Administration, inspections numbering 15,369 have been made. The Inspection Force now comprises seventy-nine U. S. Fuel Administration Inspectors and one hundred and six State Inspectors working in cooperation with them. Mines under inspection by other governmental departments, such as the Pocahontas fields, under supervision

by the Navy Department, do not receive a duplicate inspection by the Fuel Administration.

The present supply of coke is slightly less than the maximum demand of blast furnaces and war industries.

There are at present 405 blast furnaces in the United States in shape to run; their monthly requirements being 4,250,000. The blast furnaces take about 95 per cent of the total production of coke, this percentage amounting to 4,100,000 tons. The real shortage at present, due to certain number of furnaces being "out of blast," is about 75,000 tons per month.

The war program demanding that the maximum number of furnaces be kept in operation, there has been but very slight accumulation of stocks. The distribution is being handled by telephone and telegraph direct from Washington, shipments being diverted as necessary to put the coke where most imperatively demanded. The failure to meet the maximum production requirements is due not to any lack of ovens, but to shortage of labor at ovens and in mines having ovens."

The oil situation is, briefly, this:

The oil and natural gas situation for this winter will probably be somewhat acute, owing to the decrease in production of natural gas as compared with last year and the expected increase in consumption, and in the case of oil to the steadily increasing domestic and overseas demands.

The successful solution of the oil problem is largely one of transportation. tank ships are very scarce and existing pipelines are now running practically to capacity.

Additional pipeline capacity is being built into the new field at Ranger, Texas, but the transporting of this oil from Gulf ports to North Atlantic ports will involve additional tank steamers not now easily available.

It is essential to limit additional consumption wherever possible, pending construction of additional transportation facilities either in the form of pipelines tank ships or tank barges.

Oil stocks on Sept. 1, 1917, and Sept. 1, 1918, were, for gasoline, kerosene gas oil and fuel oil as follows:

	Gasoline	Gas, oil and
Stocks.	and naphthas.	fuel oil.
Sept. 1, 1917	6,025,000	11,600,000
Sept. 1, 1918	6,000,000	9,400,000
		10,500,000

As to labor. It is a remarkable fact that although 38,000,000 tons more of coal, anthracite and bituminous, have been produced in the first six months of the present coal year than in the corresponding period of 1917, there have been fewer laborers in the field. 50,000 to 60,000 mine workers have gone into military service and 50,000 to 60,000 more have left the mines for more remunerative work in other fields. The response of those who have re-

mained to the appeals of the President and of the Fuel Administration and their appreciation of the fact that the mine worker is vitally important to the soldier in the trenches, accounts, in large part, for the production results. The mine workers have merited the praise just received from General Pershing by cable. "We soldiers know that we can depend upon you to do your part as we are doing ours." The relation of coal and steel to war is new. A hundred and fifty years ago coal and steel were relatively negligible items in war programs, that is, as compared with the soldier in the field. To bring the new relation home to the hundreds of thousands of mine workers of many nationalities and of varying degrees of familiarity with political and industrial conditions, has been no small task. The Labor and Production Bureaus of the Fuel Administration deserve the greatest credit for their work in this direction.

But labor alone cannot produce coal. As stated above, coal is produced in a commercial sense only when it is dug out of the ground and loaded into cars. Coal in the mine or dumped on the ground at the mouth of the mine, is of as little value as Robinson Crusoe's money. It must be transported to the bin of the consumer and to the furnace if it is to meet the need. If the Railroad Administration had not met the problem of transportation, the results achieved would not have been possible. The elimination of competitive use of tracks, terminals and equipment,—in other words, the taking over for the period of the war of the competing railroad systems and their operation under a single administrative head, has contributed more largely than any other single factor to the result obtained.

But only of less importance was the elimination of long hauls and cross hauls which constituted a waste of both motive power and of car tonnage. The importance of this is recognized when it is understood that more than one-third of the entire tonnage of our railroads, even in ordinary times, is used for the transportation of coal.

From the foregoing, it may be inferred that the fuel situation is so well in hand that vexing economies are no longer necessary. But this is far from true. Had less essential industries been permitted to operate without curtailment of fuel supply, the stocks on hand would have been seriously reduced. We have been able to stock up because we have saved as well as because we have produced more coal than at any other time. In cooperation with other war administrations, especially with the War Industries Board and the Food Administration, the Conservation Bureau of the Fuel Administration has made an estimated saving thus far of 12,700,000 tons of coal for the first half of the coal year, but as the saving each month is constantly increasing, there will be a much greater saving during the next six months, which includes

the winter, so that it expects, during the entire year, to be able to report a saving of 30,000,000 tons.

The Fuel Administration approaches the winter season well organized, with stocks of coal on hand far in excess of the stocks of other years, the report says. We are ready for an unusually severe winter, but we are still and shall continue to be dependent upon the cooperation of the people of the United States in conserving fuel and upon the several agencies concerned in the production and transportation of fuel to enable us to carry through our program to the end of the year.

The people of the United States have demonstrated their willingness to make and sacrifice necessary, but they must be satisfied that what is asked is necessary and reasonable. The highest testimony to democracy has been furnished by the way in which the people of the United States have met the requests of the Food and Fuel Administrations, even when those requests have imposed upon them personal inconvenience and sacrifice.

New Fuel Administrator for South Carolina

B. E. Geer, of Greenville, deputy fuel administrator for South Carolina, has been appointed by the United States Fuel Administrator, H. A. Garfield, fuel administrator for that state, to succeed B. B. Gossett, who resigned recently to accept a commission as captain in the chemical warfare branch of the Army. Mr. Gossett had delayed going into the Army for some time at the request of the Fuel Administration.

Mr. Geer, who is about 45 years of age, was for many years head of the department of English at Furman University. For the last few years he has been actively and successfully engaged in the manufacture of cotton goods, and at the same time has held the office of treasurer of Furman. Mr. Gossett was very warm in his endorsement of Mr. Geer as his successor as fuel administrator.

The Fuel Administration's office will be moved to Greenville after November 1.

Exportation of Second Hand Iron or Steel Articles

The War Trade Board announces, in a new ruling (W. T. B. R. 290), that on and after November 1, 1918, all applicants for licenses to export second-hand articles composed of iron or steel will be required to state on Form X that the commodity to be exported is "second-hand." Failure on the part of the applicant to describe second-hand material as such will be regarded as an inaccurate description of the goods and the applicant will be subject to the prescribed penalty therefor.

SIX MONTHS' FIGURES SHOW BIG INCREASE IN PRODUCTION

Evidence of the efficiency with which coal miners and operators responded to America's call for more coal as a war requisite is contained in a statement of the United States Fuel Administration, giving the revised coal production figures for the first six months of the statistical coal years 1916, 1917 and 1918. The coal year begins April 1. From April 1, 1918, to September 30 the bituminous mines of the country produced 312,282,414 tons, by far the largest output for six months in history.

The output of bituminous coal for the first six months of this coal year was an increase of 79,200,848 tons as compared with the corresponding period of 1916—the year before the United States entered the war. That is an added output of approximately 34 per cent, figured on the basis of 233,081,566 tons for the period April to October of 1916. The increased production this year, compared with the first six months of 1917, was 37,745,242 tons, or 137-10 per cent. The greatest enlargement of output was achieved in the months of July, August and September, this year, indicating that there is a steadily rising tide in the win-the-war fuel. The rate of increase for those months was 174-10 per cent over 1917.

Supply even now is not sufficient to meet all domestic and war requirements. The coal needed for the first six months of 1918 was 11,703,586 tons more than was sent to the surface. It is pointed out also that the need for continued careful conservation of fuel is still urgent. Demand for American coal will be extremely heavy for a long period to come. The reconstruction work in France, Belgium and Serbia—work to repair the ravages of the Hun invaders—will call for enormous quantities of coal, a great part of which must be supplied by American mines.

Gold Report About Ready

A committee consisting of Hennen Jennings (chairman), J. H. Mackenzie and Charles Janin, of the Bureau of Mines, and H. D. McCaskey and F. L. Ransome, of the Geological Survey, appointed by the Secretary of the Interior to make a thorough study of the gold mining situation in the United States in relation to the increased cost of gold mining operations and the decreased output of gold, and to consider different measures that have been proposed for the relief of the industry and for the stimulation of gold production, is about to report.

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SENATOR KEARNS VICTIM OF APOPLEXY FOLLOWING ACCIDENT

Former United States Senator Thomas Kearns, who was a director of the Utah Chapter, American Mining Congress, since its organization, died at his home in Salt Lake, October 18. About a week before his death, Senator Kearns was struck by an automobile which fractured a bone in his leg and bruised him considerably. He visited his office the following day, but the next morning suffered a stroke of apoplexy from which he did not recover.

Senator Kearns had been a conspicuous figure in the mining world for many years and was also prominent in political life and as a philanthropist.

He was born 56 years ago in Ontario, Canada. When 10 years old he went with his parents to Nebraska, where he worked

on a farm for several years. He then went to the Black Hills and worked as a miner in the Homestake Mine until 21 years of age, when he came to Utah and obtained employment as a miner in the Ontario Mine at Park City. In addition to working his full shifts in the Ontario, he prospected constantly and learned all he could about mining. He went through seven years of unsuccessful prospecting, but fortune finally smiled on him through the Mayflower Mine of which he was one of the owners. Later he became one of the owners of the famous Silver King, now known as the Silver King Coalition, of which he was vice-president and general manager at the time of his death.

He was elected United States Senator to fill a vacancy in 1901 and served four years.

His mining and other operations made him very wealthy. He invested heavily in other western enterprises, including real estate, farms, ranches, etc., and was a director of two Utah banks and a director of the Salt Lake Route Railroad. He was also half owner of the Salt Lake Tribune and was the owner of the Kearns Building in Salt Lake City. His residence at Salt Lake is one of the finest in the west. Among his philanthropies the best known is the Kearns St. Ann's Orphanage, founded by Senator and Mrs. Kearns many years ago.

Senator Kearns felt keenly the recent loss of his warm friend and business associate, David Keith, who died within the last year. They were co-owners in many important enterprises and had been closely associated for a generation.

Besides his widow, Senator Kearns left three children, Lieut. Thomas Kearns, Jr., of the aviation service; Edmund J. Kearns and Miss Helen Kearns.

FIFTY PER CENT COPPER CONCENTRATES NOW MAY BE IMPORTED

The ruling of the War Trade Board (No. 211) affecting the importation of copper ore has been so far modified by a new ruling (W. T. B. R. 249) as to permit the importation of copper concentrates containing 50 per cent or over of copper from non-enemy countries, instead of 60 per cent or over as in the former ruling. The previous restriction prohibiting the importation of ore, except from Cuba, Canada, or Mexico, and of copper concentrates containing less than 50 per cent of copper, except from the above countries, remains in force. There is no restriction upon the importation from any non-enemy country of copper matte, blister copper, or copper concentrates containing 50 per cent or more of copper.

READJUSTMENT OF WAGES IN

THE ANTHRACITE DISTRICT

The Conference of National Labor adjusting agencies has authorized the following:

Since the beginning of the war there has been a depletion of mine workers in the anthracite coal fields from 180,000 to 144,000, and under existing conditions, further depletion, which will seriously affect the output of coal, seems to be inevitable.

This situation has grown out of the fact that since the anthracite wage agreement was entered into last December by the operators and mineworkers with a pledge to the Fuel Administration that it should continue for the duration of the war, events have made a continued performance of the obligation a real hardship to the mine workers. Nevertheless, the mine workers and operators who have adhered to the undertaking have patiently exerted their energy to maintain the output of coal. They regard the obligation as binding, whatever its hardships. But considerations other than the undertaking of the men are involved. For time has revealed conditions that were not anticipated last winter with the result that there is a movement of men away from the mines to other war industries and a growing feeling of restlessness among the men at the mines. To continue the arrangement of last winter without any readjustment is to disregard a situation that threatens to interfere with the successful prosecution of the war.

Therefore, with a view to ascertaining all the facts and suggesting a remedy for the situation, representative anthracite operators and mine workers have been meeting, in accordance with your suggestion, with Dr. Garfield and his representative of the Fuel Administration. They have thoroughly considered the available figures in regard to the increase in the cost of living since last winter, and relations between wages in the anthracite and bituminous fields, and between anthracite and other war industries. As a result of these studies and deliberations, a plan of adjustment designed to check depletion and unrest in the anthracite coal fields has been submitted to this conference for our independent judgment and recommendation in view of the labor situation of the entire country.

After careful study of the suggested plan of readjustment and the grounds upon which it is based we are convinced that the interest of the whole nation compels a readjustment of the wages in the anthracite coal fields.

We, therefore, recommend the readjustment of the anthracite wage scale, as provided in the plan submitted to us, which establishes, in substance a scale of wages ranging from 42 cents per hour for laborers outside of the mine to estimated average earnings for contract miners of approximately \$6.60 per day. This scale we have found to be in line with the wages already established by governmental agencies for other industries and are con-

vinced that its adoption will act as a stabilizing influence. Without such a readjustment, the vital needs of the country for coal are jeopardized. With such readjustment there should be no further drains on the labor force of the anthracite mines and production should be maintained and, probably increased.

Before reaching the conclusion that the readjustment we herein recommend is necessary to meet the national situation, we satisfied ourselves that in no other way can the necessary supply of labor be maintained or stability in the industry be assured. Prior to the European war labor in the coal fields was largely recruited through immigration. Since 1914 this flow has entirely ceased. Therefore, especially in view of the increased need of coal by the country, it is essential that the resident labor supply of the region be retained by the anthracite industry. The mine workers are fully alive to the country's need for production and their organizations have carried on an intensive campaign for output. The efficiency of the workers is attested by the fact that, although depleted by 36,000 since the war, the production of coal has been maintained. It is gratifying to know that the mine workers have generously given up for the period of the war the observance of religious and other holidays in order to continue at work.

One general aspect of the anthracite situation was made clear in our meetings, which we deem very pertinent for the consideration of the Fuel Administration. It appears that there is lacking the basis for scientific knowledge in regard to some of the underlying facts of the industry, upon which issues as to wages and output must finally be decided. Therefore, representatives of the mine workers, as well as of the operators urged upon us that steps should at once be taken whereby systematic and authoritative information will be had, for the future, in regard to such fundamental questions as comparative earnings, labor turnover, continuity of employment and sufficiency of output. It was agreed that we must create conditions which will assure greater continuity of employment, greater regularity of work, greater quantity of output, at the same time that we fully observe all those safeguards which should protect the workers in this hazardous industry. In a word, the conditions of the industry must be stabilized. Therefore, the attitude of mind of those in the industry in regard to those conditions must be organized. As a necessary prerequisite we must have that basis of knowledge upon which alone we can act wisely and with justice.

Those represented were: Felix Frankfurter, chairman, representing the Secretary of Labor; from Emergency Construction Wage Commission—John R. Alpine, Joseph H. Alexander, Colonel Q. M. C.; from Fuel Administration—Rembrandt Peale, P. B. Noyes; from Labor Department, Division of

Mediation and Conciliation, John B. Lennon; from National Adjustment Commission, Robert P. Bass; from National Harness and Saddlery Adjustment Commission—Samuel J. Rosensoh, Major, J.A.G., U. S. A., office of Secretary of War; W. E. Bryan; from Navy Department—Albert L. Norton, Commander U. S. Navy; from Railroad Administration—W. T. Tyler (except as to the semi-annual revision to meet changes in cost of living to which the Railroad Administration object); from Shipbuilding Labor Adjustment Board—A. J. Berres, V. Everit Macy; from War Department—F. W. Tully, Major Ordnance. Detailed to office of Secretary of War.

WAR LABOR BOARD MAKES AWARD IN GENERAL ELECTRIC CASE

In the controversy between the employees and the General Electric Company, of Lynn, Massachusetts, the National War Labor Board reached a unanimous conclusion. The Board ordered the reinstatement of twelve of the employees who had been dismissed before the strike, on the ground that the dismissal was due to a discrimination against the union. The Board sustained the discharge of White and Peterson, who were dismissed after the strike because of insubordination and breach of discipline. Three of the men reinstated, the Board had to admonish, due to evidence of insubordination that in their return they should conduct themselves with great caution and not regard themselves as favored by reason of reinstatement.

The Board directed that a system of collective bargaining and shop committees should be forthwith put into operation; that if the committees thus selected could not agree, the question should be taken up by an examiner reaching the Board by appeal for its ultimate decision.

The Board recommended the adoption of the Schenectady system of hours and wages insofar as applicable to the Lynn locality. The changes in pay are to be retroactive to the 17th of July.

Following is the award:

In the case of the Employees vs. the General Electric Company, Lynn, Mass., the National War Labor Board orders:

COLLECTIVE BARGAINING

1. That there be elected forthwith shop committees, in conformity with a plan approved by the Board.

2. That the Secretary of the National War Labor Board shall appoint an Examiner who shall supervise and conduct these elections.

3. That a General Committee shall be created, consisting of three members to represent the workers and three members to represent the employers. The members

of the General Committee representing the workers shall be selected by the members of the shop committees acting jointly, under supervision of the Examiner.

4. That the employers shall forthwith select their representatives to meet with the representatives of the workers on the shop committees, and the General Committee.

WAGES

5. Within five days after their selection, the representatives of the workers and employers on each shop committee shall meet for the purpose of adjusting all disputes and matters of controversy in this case which affect the wages of the shop represented by said committee.

The Board suggests that in the adjustment of these wages they should be made comparable with those awarded by the Board in the Schenectady case.

Failure to reach a decision on any matters coming before the Shop Committee within forty-five days from the time the matter was first taken up, it shall be referred to the General Committee for adjudication. In the event of failure of this Committee to reach a decision, the matter shall be referred to the Examiner of the National War Labor Board, who shall promptly report the matter to the National War Labor Board for decision.

6. Within five days after its selection, the said General Committee shall meet for the purpose of adjusting

(a) All matters referred from the shop of departmental committees; and

(b) All matters in controversy in this case which affect wage conditions of the plant as a whole, but which have not been settled through the medium of the Shop Committees.

7. In any case where there is doubt of dispute between Shop Committees and the General Committee as to original jurisdiction of matters to be adjusted, the question of jurisdiction shall be decided promptly by the Examiner of the National War Labor Board.

RETROACTIVE PAY

8. Wage increases made in accordance with the provisions of this award shall be retroactive to July 17 1918, and the company shall be given until December 1st, 1918, to make such retroactive payment.

HOURS OF LABOR

9. The Board decrees that the hours of labor shall be the same as at Schenectady.

ALLEGED DISCRIMINATION

The right of the workers to organize in trade unions and bargain collectively through a chosen representative is recognized and affirmed. This right shall not be denied, abridged, or interfered with by the employer in any manner whatsoever.

10. That Leslie Taylor, Joseph Glassett, John J. Kerivan, James Hanson, John J. Connolly, Edwin Murch, Herbert Pogson, Rufus Hartley, Walter Putnam, Raymond Shattuck and Arthur E. Clark shall be reinstated in their employment at the same jobs, or work of similar nature to that which each was doing when dismissed, at rates of pay not less than each was then receiving, nor less than the rate established for the work upon which each is re-employed (plus any increases which such work may receive under the terms of this award without loss or seniority rating or bonuses and with pay for all time lost by reason of dismissal, minus amount, if any, of intervening earnings). Such re-employment by the company shall be dependent upon each employee presenting himself to the company within five days after the receipt of this award by the parties to the case.

11. That the reinstatement of John F. Peterson and William H. White is not ordered, as they did, for the reason that they not only ordered the employees to cease work, but directed them not to leave the shop, but to sit in their seats and do nothing, while at the same time the foreman was directing them to continue work or leave the shop. These men apparently had good records up to the time of this occurrence, and this action by the Board should not, therefore, prejudice their future opportunities for employment.

12. With reference to Leslie Taylor, James Hanson and Edward Murch, whose reinstatement we adjudge, the Board has been in some doubt; but to reach a unanimous conclusion, their names have been included in the list to be reinstated, with a warning to these men that the evidence of their insubordination has been such that they should be duly cautioned and not assume by their reinstatement that they occupy a favored position by reason of the order.

ADMINISTRATION OF AWARD

13. The Secretary of the National War Labor Board shall assign an Examiner to supervise the execution of this award. Should a controversy arise in respect to the interpretation of the award, an appeal may be made to the Board, and shall operate as a stay, or otherwise, according to the rule of the Board.

PERIOD OF AWARD

14. This award shall be in effect for the period of the war; provided, that on February 1, 1919, and at periods of six months' intervals thereafter, either party may reopen the case before the National War Labor Board for such readjustment as changed conditions may render necessary.

GASOLINE STOVE MAKING STOPPED AS CONSERVATION MEASURE

Discontinuance of the manufacture at this time of gasoline stoves, because of the heavy war and industrial uses of gasoline, is advised by the War Industries Board.

The Priorities Division, in granting priority to the oil and gasoline heating and cooking devices and appliances industry, requires a pledge of the manufacturers to reduce consumption of iron, steel, brass, copper and aluminum used in the manufacture of their products to a basis of not exceeding 50 per cent of six-twelfths of the 1917 consumption.

In reference to the discontinuance of the manufacture of gasoline stoves when present stocks are exhausted, the Priorities Division says:

"The war and industrial uses for gasoline are so heavy at this time that it is advisable to ask you to discontinue the manufacture of gasoline stoves during the present emergency and use the materials which are ordinarily applied to the manufacture of such products to the manufacture of gas heating and cooking devices and appliances. This will not be construed as interfering with your working up materials on hand which are suitable only for the manufacture of gasoline stoves. It may be that the lines of some of your manufacturers contain substantially no other products than gasoline stoves. The shutting down of the plants of such manufacturers is to be avoided if possible, but such manufacturers are urged to get into war or other important production, so that they may lay as little burden as possible upon the gasoline supply. Until their resources can be converted to the manufacture of such new products they may continue to make gasoline stoves within 50 per cent limitation, but they are urged to keep their production of stoves as low as possible."

New Bureau of Prices Head

Harry A. Garfield, United States Fuel Administrator, has announced the appointment of W. D. Tyler as acting director of the Bureau of Prices of the Fuel Administration, to fill the vacancy caused by the resignation of E. Q. Trowbridge, who received a commission as captain in the gas and flame division of the Chemical Warfare Corps of the United States Army, and left recently for Camp Humphrey, Va., to train.

Mr. Tyler comes to the Fuel Administration with thirty years' experience in the coal business. His experience was gained in the Pocahontas fields of southern West Virginia and southwestern Virginia, where he spent seventeen years in mining and real estate work.

EIGHT-HOUR DAY RULING**UPHELD ON REHEARING**

Walter Clark, Chief Justice of the Supreme Court of North Carolina, umpire for the National War Labor Board in the case of the employees versus the management of the Wheeling Mold and Foundry Company, has denied the motion of Walter Drew, counsel for the company, for a rehearing of the decision of September 16, 1918, applying the eight-hour day to the operation of the plant. The decision forbids the working of any employee more than eight hours in any one day, except in case of emergency, and provides that an emergency shall exist only when a committee, representative equally of employer and employees, declare it to exist. Following is Justice Clark's denial of the company's appeal:

"This is a petition to rehear the decisions of the board in this case, filed 16th September, 1918. The chief ground urged is that the agreement passed upon had not been actually adopted by the parties.

"It is true, it was a proposed agreement, but the argument on both sides presented the question whether the agreement, if adopted, would mean an actual eight-hour day, or a basic eight-hour day. If it was the former it was acceptable to the plaintiffs, the employees. If it meant the latter, it would be accepted by the defendant company and imposed upon the workers.

"The case was thoroughly argued by both sides with great force and ability, and the points at issue were clearly understood by the board and the umpire. Upon hearing the case, the decision was that an actual eight-hour day should be adopted, and as a protection against overtime 'on emergencies' it was ordered that nothing should be held an emergency unless so declared by three votes on a joint board to consist of two members to be selected by the employers and two by the employees.

"On a full and careful review of the arguments then made and the questions presented by the petition to rehear, the opinion and the award heretofore made are in every respect confirmed.

"Soon after this opinion and decision of the board had been rendered, and, possibly, in consequence of it, the great United States Steel Corporation, with 300,000 employees, adopted the eight-hour law and other companies are doing the same. By reason of its position as a great financial and progressive institution, the action of the United States Steel Corporation marks a distinct advance toward the universal adoption of the eight-hour day, especially if there shall go with it the provision of the award in this case that there shall be no evasion of the 'eight hour' day upon the declaration of the employer alone of emergency, but the emergency shall be declared by a majority of the joint board

appointed by the employers and employees as stated in the award in this case.

"Long since, Mr. Henry Ford, another progressive and successful employer of large bodies of men, adopted voluntarily the eight-hour day, which is the end toward which industry is inevitably and irresistibly moving, by reason of it being justice to the employees and no less to the real interests of the employers and managers of our great industries."

The motion to rehear is over-ruled.

**MUCH FUEL OIL WASTED, SAYS
THE BUREAU OF MINES**

Fuel sufficient to operate the railroads of the United States for one month is being absolutely wasted every year by the users of fuel oil.

Five times the fuel necessary for all the Federal Government, including its Navy and Army, is being thrown away by these same users of fuel oil.

The fuel being squandered, and recklessly, too, by these same fuel oil users is approximately the entire output of coal for the State of Colorado in one year's time.

These are the startling conclusions that have been drawn by experts of the Bureau of Mines, Department of the Interior, who have been cooperating with the Fuel Administration in a general survey of the use of fuel oil for power purposes in the United States. They find that last year 160,000,000 barrels of fuel oil were used and that 40,000,000 barrels, or one-fourth of the entire amount was wasted and might have been saved by more intelligent operation of plants and proper firing. This represents a useless expenditure of \$140,000,000 a year, or enough money to pay some of the country's important war bills, the fuel oil selling at about \$3.50 a barrel. The experts also say that this wastage is doubly criminal at this time because of the urgent need of fuel oil for the ships of the Navy and for other essential war purposes. Further they declare that the 40,000,000 barrels of fuel oil lost each year is the equivalent of 10,000,000 tons of coal.

With such a situation confronting the country, both the Bureau of Mines and the Fuel Administration have sent into those parts of the country where fuel oil is extensively used a number of engineers who have been visiting the plants and endeavoring to demonstrate to the men where losses occur and showing how they may be stopped. As one result of the investigation a handbook for boiler-plant and locomotive engineers in the efficient use of oil fuel has been issued by the Bureau of Mines giving instructions to all those who have oil burning plants. Van H. Manning, Director of the Bureau of Mines, has ordered that a copy of these instructions be forwarded to all known plants using fuel oil.

"I have always been aware that the United

States, probably through her great richness of resources, is one of the most wasteful of nations, but it has taken the emergencies of the war to disclose with startling directness the colossal wastes of war-winning supplies that are still going on," said Director Manning. "It is a new chapter in national profligacy to learn that in its use we are wantonly destroying one-fourth of our supply of fuel oil, to the extent of 40,000,000 barrels a year, while our oil operators are directing every available energy and millions of dollars toward inducing the earth to give up more and more of the precious petroleum, the most perfect of existing fuels.

"It calls for something more than criticism from a Federal official when we realize that in this greatest of world's crises, with the future of the people in jeopardy, the very fuel which is greatly needed for our American Navy to drive it on to final victory, is being dissipated here in this country to such an alarming degree. It calls for immediate and drastic action, and with the cooperation of the Fuel Administration we propose to see that the waste is stopped."

FREE USE OF NATURAL GAS TO BE RESTRICTED CLOSELY

The Fuel Administration, through its Bureau of Oil Conservation, has sent letters to all natural gas companies in West Virginia, Ohio, Pennsylvania, Kansas, Kentucky, New York, Oklahoma, Arkansas, Louisiana and California, requesting that free consumers be limited to 200,000 cubic feet of natural gas per annum, and calling for a report of results accomplished on December 1.

By free consumers is meant those users of natural gas who are relieved of payment because they have wells or pipe lines on their property. Up to this time the average consumption of free users in West Virginia alone has been 480,000 cubic feet per consumer per year. This is regarded by the Fuel Administration as causing a waste of at least 350,000 cubic feet per consumer per year.

In addition to limiting free consumers, the Fuel Administration further requests that the use of all open or flambeau lights be stopped, and that all other wasteful practices by consumers be eliminated. The natural gas companies are informed that to properly carry out these requests it will be necessary to place meters on all free consumers' service lines.

The authority to make and enforce these requests is invested in the Fuel Administration through the Presidential proclamation of September 16 and by rules and regulations promulgated by Fuel Administrator Garfield on September 24 governing licensees engaged in the business of importing, manufacturing, distributing and trans-

porting crude oil, fuel oil, gas oil, kerosene, gasoline and natural gas.

In many instances boom towns in the gas fields have held out the inducement of supplying free gas, or supplying it at ridiculously low prices to industries that would locate there. This is especially true of West Virginia, and has resulted in depriving many domestic consumers of an adequate supply of fuel for household use. It is estimated that there are 4,400 free consumers in West Virginia alone, and that the amount of waste from this source is 1,540,000,000 cubic feet per annum.

Munitions Patent Board Named

For the purpose of coordinating the policies of the War Department and the Navy Department in patent matters, the Secretary of War and the Secretary of the Navy have established the Munitions Patent Board. The membership of this board consists of Thomas Ewing, who has been jointly selected by the Secretary of War and the Secretary of the Navy; Max Thelen, the representative of the War Department, and Pickens Neagle, representing the Navy Department.

The Munitions Patent Board has been formed to consider clauses in contracts of the respective departments dealing with patents, questions as to the validity or infringement of patents and the patentability of inventions, questions as to the amount of compensation to be paid for patents or for the use of patents, and all other miscellaneous questions as to patents which may arise in the two departments interested. The board is empowered to recommend, from time to time, to the Secretary of War and the Secretary of the Navy suitable action to be taken or policies to be adopted in regard to all patent matters which are brought before it for consideration. The action of the board in matters which come before it, in so far as they apply to the War Department, is subject to the final approval of the Secretary of War, and in matters for the Navy is subject to the final approval of the Secretary of the Navy.

C. E. PERSONS TO HANDLE PUBLICITY

Fuel Administrator H. A. Garfield has appointed C. E. Persons of San Francisco, Director of Education of the Fuel Administration.

Mr. Persons has been connected with the Western Division of the Associated Press for seven years and for the last three years has been news editor of that division.

At the request of Dr. Garfield, the Associated Press has released Mr. Persons for this work.

PRICES OF ANTHRACITE IN VARIOUS CITIES

In the October Monthly Labor Review, which will soon be published by the Bureau of Labor Statistics of the Department of Labor, is given a table showing by cities the average retail prices of coal on January 15 and July 15 of each year, 1913 to 1918. Prices are shown for 50 cities from which prices are secured by this bureau for food. The coal dealers in each city were asked to quote prices on the kinds of coal usually sold for household use. The table shows prices of Pennsylvania anthracite white ash coal, both in stove size and in chestnut size, and an average price for each city of the several kinds of bituminous coal.

The following table gives the prices for a few of the cities which will be shown in the Review. All prices are for a ton of 2,000 pounds, unless otherwise stated. Prices for Seattle are those for Zone A, which is the cheapest zone of distribution. Prices in the other zones range from 25 cents to \$1.50 per ton additional.

	an., 1913.	Jan., 1918.	July, 1913.	July, 1918.
Baltimore (2,240 lbs.)—				
Pa. anthracite stove.....	\$7.70	\$9.60	\$7.24	\$10.45
Pa. anthracite chestnut.....	7.93	9.75	7.49	10.55
Boston—				
Pa. anthracite stove.....	8.25	9.85	7.50	10.25
Pa. anthracite chestnut.....	8.25	9.85	7.75	10.25
Chicago—				
Pa. anthracite stove.....	8.00	10.35	7.80	10.90
Pa. anthracite chestnut.....	8.25	10.39	8.05	10.98
bituminous	4.97	6.67	4.65	6.48
Cincinnati—				
Pa. anthracite stove.....	8.25	9.50	7.50	11.66
Pa. anthracite chestnut.....	8.75	9.50	7.75	—
bituminous	3.50	6.10	3.38	6.73
Detroit—				
Pa. anthracite stove.....	8.00	9.88	7.45	10.15
Pa. anthracite chestnut.....	8.25	10.08	7.65	10.52
bituminous	5.20	8.27	5.20	8.18
New York—				
Pa. anthracite stove.....	7.07	9.06	6.66	9.30
Pa. anthracite chestnut.....	7.14	9.08	6.80	9.28
Philadelphia (2,240 lbs.)—				
Pa. anthracite stove.....	7.16	9.59	6.89	9.81
Pa. anthracite chestnut.....	7.38	9.68	7.14	9.89
St. Louis—				
Pa. anthracite stove.....	8.44	10.43	7.74	11.00
Pa. anthracite chestnut.....	8.68	10.53	7.99	11.25
bituminous	3.36	5.44	3.04	5.89
San Francisco—				
Bituminous	12.00	13.87	12.00	14.08
Seattle (Zone A)—				
Bituminous	7.13	7.87	7.20	9.13
Washington (2,240 lbs.)—				
Pa. anthracite stove.....	7.50	10.10	7.38	9.96
Pa. anthracite chestnut.....	7.65	10.19	7.53	10.06

Modifies Ruling

The Price Fixing Committee of the War Industries Board has modified its ruling of September 26, so as to read, "The maximum prices for acid below 92 per cent H_2SO_4 shall be figured on the price for 60° Be. Sulphuric acid, and above 92 per cent H_2SO_4 on the basis of 66° Be. Sulphuric Acid.

Influenza Cuts Anthracite Production

Anthracite production for the week ended October 19 fell off in spite of the efforts of the Fuel Administration and the patriotic spirit of the miners and operators to increase it. The decrease, which was 191,074 tons from that of the week ended October 12, showed a total output of anthracite from the mines of 1,371,114 tons.

MANNING ADVISES CONGRESS**TO PASS THE LEASING BILL**

In connection with the resolution passed by the Senate asking whether the enactment of S. 2,812 would help the oil situation, the following was submitted by Van H. Manning:

Prior to September 27, 1909, public lands in the United States and the Territory of Alaska were subject to exploration, location, and purchase under the placer mining laws of the United States (secs. 2,329-2,331, R. S.; Acts of February 11, 1897, 29 Stat., 526, and February 12, 1903, 32 Stat., 825). Under these laws any citizen of the United States or person who had declared his intention to become such could go upon the public lands and explore for oil, and upon discovery apply for and receive patent as prescribed in the mining laws. September 27, 1909, the President of the United States withdrew from exploration, location, and entry large areas of public lands known or believed to contain valuable deposits of petroleum for the primary purpose of withholding same until Congress could consider legislation designed to secure the exploration for and development of deposits of oil and gas under a leasing law. Similar withdrawals had been made from time to time until at the present there are withdrawn from all exploration, location, and entry 6,524,834 acres of land either known to contain oil and gas or believed to possess possibilities thereof. This acreage is not all public lands, as considerable areas within the exterior limits of withdrawals were patented under the various public-land laws prior to dates of withdrawal. There are also withdrawn 132,024 acres of land known to contain valuable deposits of oil shale. The withdrawals cover lands in the States of Arizona, California, Colorado, Louisiana, Montana, North Dakota, Utah, and Wyoming. In addition, all lands containing deposits of oil in the Territory of Alaska are likewise withdrawn.

Most of the lands so withdrawn are free from claims and would, if Senate bill 2,812 or other legislation providing for their disposition were enacted into law, be subject to exploration and development in accordance with its provisions. A minor portion of the area, comprising valuable proven oil territory, was, however, covered by locations made under the mining law prior to withdrawal and the claims so asserted have not been disposed of, but are pending in the land department or in the courts. Most of these claims have upon them one or more producing oil wells, but increased production through the drilling of additional wells is practically halted by the withdrawal. The so-called relief provisions of Senate bill 2,812 are designed to adjust these controversies and secure the development of the lands.

In my opinion, the enactment of a law providing for the development of the oil lands of the United States would (1) open to exploration and development the vast areas of public land in the United States and Alaska now absolutely withdrawn from exploration and development, thereby resulting in the discovery and development of new oil fields and deposits, thus adding to the oil and gas supply of the United States and Alaska; (2) permit of the leasing of lands now withdrawn and actually proven to contain valuable deposits of oil and gas by the existing wells upon the lands or upon adjoining tracts (these fields are principally located in California, Wyoming, Montana, and Louisiana); and (3) permit of the further development of existing claims within withdrawn areas which have upon them one or more producing oil wells. These areas are already equipped with pipe lines and facilities for developing and transporting oil, and many of the interested individuals and corporations have equipment, in the way of casing and other supplies, which could be immediately utilized in the drilling of additional wells.

The most immediate results would be obtained from the lands mentioned in the above items 2 and 3, namely, proven lands which have not been developed by oil wells and lands within withdrawals, but which have within their limits one or more producing oil wells at the present time.

During the past few years I have made a number of reports and suggestions to the Public Land Committees of Congress with respect to legislation of the character involved, and bills have passed one of the bodies of Congress, but none has received concurrent approval. I do not feel that I should at this time specifically indorse any particular measure, and consequently this report is designed to explain, briefly, why I believe the enactment of legislation for the development of the oil resources of the public domain would materially aid in obtaining an increased fuel supply in the immediate future. It must be obvious to any one familiar with the situation that the existing withdrawals and controversies prevent the bringing of the oil from underground and into use, and the conditions described in the report of the United States Fuel Administrator in his report to the Senate, dated September 10, 1918, Document 277, and in my report responding to Senate resolution 301, which gave in some detail the present situation, with special reference to gasoline, emphasize the importance and desirability of the enactment of legislation which will, while properly preserving the public interest, stimulate and encourage the production of oil from our public lands.

I am of the opinion, therefore, that, viewed from any angle, the passage of a leasing bill is desirable, and conditions possibly will arise that will make it distinctly a war measure.

EPIDEMIC REFLECTED IN COAL OUTPUT FOR WEEK OF OCTOBER 12

The spread of Spanish influenza is beginning to cut into coal production although the output of bituminous coal during the week ended October 12 showed only a slight decrease, compared with the week preceding. The estimate furnished to the United States Fuel Administration by the Geological Survey is 12,321,000 net tons (including lignite and coal made into coke). This was an increase over the corresponding week of last year of 1,317,000 net tons, or 12 per cent. The decrease from the week before was 273,000 net tons, or 2.2 per cent, which is ascribed chiefly to interruptions of work in various districts where the epidemic was started.

The average production per working day was estimated at 2,053,000 net tons, as compared with 2,099,000 net tons during the week ended October 5 and 1,834,000 net tons during the week ended October 12, 1917. The average daily production now calculated as necessary during the remaining 24 weeks of the coal year from October 12, 1918, to March 31, 1919, is estimated at 2,034,038 net tons. It will be seen therefore that in the face of increasing handicap, the miners during the week ended October 12, exceeded the daily production estimated to be required for the remainder of the coal year.

The bituminous production during September is estimated at 51,687,031 net tons, which exceeds the production of September, 1917, by 6,579,073 net tons, or 14.6 per cent. The September production was limited by loss of time on Labor Day, and on Registration Day; also by the short month. For these reasons the production for September was approximately 4,000,000 net tons less than the production during either July or August and fell slightly below the production of June, but exceeds all records prior to June, 1918.

During the first six months of the coal year it is estimated, the production of bituminous coal was 312,282,414 net tons, as against 274,537,172 net tons during the same period of 1917. This is an increase of 37,745,242 net tons, or 13.7 per cent. The requirements during these first six months of the coal year, however, exceeded the production during these months of last year by 49,448,828 net tons, so that even with the large increase, the production during the first half of the present coal year was 11,703,586 net tons, or 3.7 per cent below the estimated requirements.

The production for the first nine months of the calendar year 1918 is estimated at 447,905,672 net tons, an increase over the same

period of 1917 of 36,179,783 net tons, or 8.7 per cent. This enormous increase over last year was effected chiefly during the months of July, August and September in comparison with the same three months of 1917, the increase during these three months amounting to 24,234,681 net tons, or 17.4 per cent. This was more than double the improvement recorded during the first six months of the calendar year.

The production of anthracite during the week ended October 12, is estimated at 1,955,000 net tons, a decrease of 4.7 per cent compared with the week ended October 5. The total production of anthracite for the coal year to date now amount to 55,658,000 net tons, compared with 54,683,000 net tons during the same period of 1917, an increase of 1.8 per cent.

During the week ended October 5 the total loss by all causes from 100 per cent production was 14.8 per cent, of which car shortage comprised 5.5 per cent, labor shorting 4.9 per cent, and mine disability 3.1 per cent; all other causes 1.3 per cent.

"THE MORE COAL YOU PRODUCE, THE SOONER WE WILL HAVE PEACE"

General John J. Pershing, from Headquarters of the First American Army in France, cabled an urgent message to United States Fuel Administrator Harry A. Garfield, in which he said: "The more coal you produce the sooner we shall have peace."

The text of the cablegram was wired immediately to the mining centers throughout the country, backed by an urgent warning from the Fuel Administration to pay no attention to unfounded rumors of peace. The Fuel Administration, in its messages, pledged itself that authentic news of peace would reach all concerned through reliable sources when the proper time came. Meanwhile all were urged to be aware of rumors. The text of the cablegram follows:

"Let there be no shortage of coal. Lack of coal means limiting our war industries, railroads and shipping are slowed down, and the Army cannot be provided with means to deliver the telling blows needed to end the war. Without coal we shall be without guns and ammunition to use against the enemy. The man in the mine helps the man on the firing line.

"The more coal you produce the sooner we shall have peace. Every soldier of the American Expeditionary Forces expects to be backed up by the miners of America just as labor in every branch of industry at home has stood behind us. We soldiers know that we can depend upon you to do your part as we are doing ours."

Confidence is expressed that General Pershing's appeal will not only check any decrease arising from this information but will stimulate tremendously the workers.

NEW ENGLAND'S WINTER COAL SUPPLY PRACTICALLY ASSURED

Continuous operation of the war industries of New England during the approaching winter is assured unless an unforeseen catastrophe to the mines, the railroads, or the coastwise shipping, during November interrupts the production of coal and its transportation to that section in sufficient quantities to supply current requirements. Unremitting vigilance in the conservation of coal, however, is and will continue to be absolutely necessary. If this be observed not even a repetition of the unprecedented severity of last winter's weather will prevent the furnaces of New England from operating at full blast from the present time until the return of moderate weather next spring.

The accumulation by New England during the past summer of sufficient coal to supply its minimum requirements during the months of December, January and February, has been made possible by effective cooperation between the miners, the United States Fuel Administration, the United States Railroad Administration, and the United States Shipping Board.

The subordination by the Fuel Administration of the winter fuel requirements of other industrial centers to those of New England is not and must not be construed as an indication that the industries of the latter section are considered of greater importance than those of any other locality. Transportation difficulties alone have controlled the policy of the Fuel Administration in providing the factories of New England with sufficient coal to insure them against a repetition of the conditions of last winter.

It is common knowledge that the railroad facilities of New England are extremely limited and are wholly inadequate to meet the enormous demand that has been made upon them since the United States became a belligerent. It is known also that this fact necessitates the transportation by water of approximately 66 per cent of the bituminous coal consumed in that territory.

Approximately seventy-five per cent of the war industries of the United States are located east of the Allegheny Mountains and north of the Potomac River. A large proportion of that percentage is situated in New England. Frozen coal in the cars, snow-bound tracks, and an intense cold which not only blocked the northern Atlantic ports of the nation, but froze ships to their docks as far south as Newport News, threatened a paralysis of the war industries of New England which was only narrowly averted. The imperative necessity for preventing a recurrence of such a situation irresistibly impelled the Fuel Administration to adopt the course it has followed in giving preference to the requirements of that locality.

Now that the winter needs of New England

have been assured it is the intention of the Fuel Administration, in cooperation with the Railroad Administration, to spare no effort similarly to supply the requirements of other localities in the order of their several transportation difficulties.

QUOTA SYSTEM PUT INTO EFFECT IN WESTMORELAND COUNTY

Complete acceptance and allotment of individual mine production quotas have been completed in the Westmoreland county coal district of Pennsylvania, according to reports made by J. S. Amend, production manager, to James B. Neale, director of production, United States Fuel Administration. Westmoreland county thus becomes the first district in the country to put into detailed effect the quota system as recently set forth by H. A. Garfield, United States Fuel Administrator.

Coincident with this comes the news that the Westmoreland district, which produces the highly essential gas coal required by steel and munition plants, has gone over the top with a new production record of 401,000 tons for the week ended October 12, or 13,000 tons in excess of the previous high mark. On the basis of 80 pounds of coal required for one 3-inch shell, the extra 13,000 tons means that Westmoreland county last week presented Pershing with the equivalent of 325,000 such shells.

Another production record was made last week by the miners of Indiana, as reported by W. J. Freeman, production manager. Mines there have moved up their speed another notch and broke their mark for the third time in four weeks by turning out 692,228 tons, an increase of 3,630 tons over the previous high record.

Big Individual Production in Illinois

Evidence of the high production rate which is being hit by coal mines throughout the country is given in figures forwarded by F. C. Honnold, production manager for Illinois, to James B. Neale, director of production, United States Fuel Administration, covering a record made at the Orient No. 1 mine of the Chicago, Wilmington and Franklin Coal Company, Orient, Ill. The record gives details of the week of October 7 to October 12, inclusive, the week's output being 32,514 tons, a daily average of 5,419 tons. The biggest day was Thursday, October 10, when 6,008 tons were loaded for shipment. This is the record production for any mine in the whole Indiana-Illinois territory, and it was made by 738 men. The length of the hoist in Orient No. 1 shaft is about 600 feet, and to raise 6,008 tons it was necessary to make 1,452 hoists, or more than three per minute.

NEALE ADDRESSES 10,000 MINING MEN AT GLEN JEAN MEETING

At a meeting of ten thousand miners, foremen, superintendents, officials and operators of the New River field at Glen Jean, W. Va., James B. Neale, director of production of the United States Fuel Administration, made the following remarks in the interest of increased coal production:

"At this time we Americans have a double task, first, to contribute the last atom of our strength towards winning the war, and thus making the world safe for democracy, and second, to show the world that democracy, as exemplified by us, is worthy of being made safe even at the frightful price now being paid. Labor can contribute much towards performing this double task. Great is its man power from which to provide soldiers, and great is its ability to transport them and to provide amply for them 'over there' and for those at home. Thus can it play a splendid part in making the world safe for democracy.

"Labor is a typical group of Americans. Its standards are just, but only as high as the standards of the average worker. The moral plane on which it stands is probably indicative of the moral plane of the American people. Labor now has a wonderful opportunity to prove to the world that its moral plane is high, proving at the same time that democracy more than autocracy has created individuals who are ever striving for higher standards.

Autocracy holds that a treaty—another name for a contract—is a mere "scrap of paper." You men of the mines must hold a contract sacred and must adhere strictly, not only to the letter, but also to the spirit of it. You work under customs or agreements, either verbal or written, calling for a certain number of hours to be spent each day working at the working places, unless prevented by unavoidable causes. The spirit demands a strict interpretation of the words "unavoidable causes." The mine management must do its best to afford good working conditions, but the mine workers must not seize upon each inconvenience and consider it an "unavoidable cause" preventing him from performing a full day's work. He must do his best in the face of handicaps. A part of the day's output is better by far than no output at all.

"It is the operator's moral duty to provide to the miner the opportunity to do a day's work each day, and it is the moral duty of the miner to make the best of that opportunity. It is the moral duty of both operator and miner to be helpful to each other and neither one can justify a relaxation of effort because of what seems to him a relaxation of effort on the part of the other. Two wrongs never made a right, never proved a high moral standard for the interested

parties. Charges and countercharges, incriminations never won a war.

"Autocracy holds that might makes right, that the end justifies the means. Labor must have a fixed, unchangeable belief that right alone makes might and must show this in a tangible way by throwing its full weight in the Allies' cause. Labor must be determined to rely for its progress upon maintaining principles which are just and right. Its strength today proves that it has followed sound principles. I prophesy for it ever increasing strength if it will see to it that each stepping stone used in its march forward in the coming years is laid on the foundation of right."

The coal from the New River field is practically all devoted to the cause of the Allies for bunkering ships and for making chemicals and explosives in the by-product coking plants of the country. The meeting was also addressed by P. B. Noyes, Director of Conservation of the United States Fuel Administration; Governor John J. Cornwell, Trooper Scott, Sergeant Brown and Lieutenant Nelidow, of the speakers' corps of the Fuel Administration.

Pit-Car Loader

Bulletin No. 246, featuring the Jeffrey Pit-Car Loader, is now ready for distribution.

As the demand for coal grows stronger, the man power available for its production will doubtless grow less, and every possible means must be employed to assist the miner if the present production is to be maintained or exceeded.

The Jeffrey Pit-Car Loader is a light, easily portable loading conveyor which performs the most arduous work the loader has to do, resulting in a considerable saving of muscular energy.

By use of these conveyors, the men can double the number of cars loaded per shift and each place loaded out in half the time required by the use of shovels only; therefore, each place can be cut and loaded out twice as often, and a greater output obtained with the present force of men, or the same output obtained with less men.

The savings in cost of coal, due to obtaining the output from a comparatively small territory in a shorter time, is effected by the saving in track and trolley material, upkeep of entries, ventilation and pumping; less number of day laborers, such as trackmen, timbermen and sub-foremen, which would be required; saving in keeping each mining machine in a small territory, as there would be less traveling done; gathering of coal would be simplified and expense reduced; timbering costs will be reduced since the places advance more rapidly and the falls from the roof are less frequent.

GASOLINELESS SUNDAY REQUEST WITHDRAWN—PUBLIC PRAISED

The Fuel Administration, on October 17, withdrew its request for "Gasolineless Sundays". If at the end of two weeks stocks are found to be dangerously low, it may be necessary to renew the request, it was stated. A priority order, giving precedence at refineries to shipments for overseas, is to be promulgated shortly.

Loyal public response to the appeal for gasolineless Sundays east of the Mississippi River was said by Fuel Administration officials to have saved at least 1,000,000 barrels and to have made it possible to give to the men at the front the supplies required in the prosecution of the war.

The stocks of gasoline east of California, it was stated, have not materially increased or decreased. As of September 16, the total stocks of gasoline were 2,949,640 barrels of motor gasoline and 340,883 barrels of aviation gasoline; as of October 14, the stocks are 3,134,731 barrels of motor gasoline and 166,369 barrels of aviation gasoline. This represents the entire reserve and is not all available for export as it is stored in the territory as far west as Wyoming and includes all interior storage in various oil producing localities.

The quantity of motor gasoline has increased 184,000 barrels, with a decrease in aviation gasoline of approximately the same amount. In other words, the condition has been held stationary.

The peak load of domestic consumption is passing. It is hoped that overseas shipments will not be quite so heavy; and a priority rule and regulation is about to be promulgated that will give priority at refineries on shipments, and if any shortage does arise it will be domestic.

The Fuel Administration is now considering the question of conservation with a view of determining what further or other measure of conservation, if any, will be needed.

Campaign to Save Natural Gas

School children in the natural gas producing territory of the United States will be taught how they can assist in the conservation of millions of dollars worth of natural gas through a course of instruction established by the United States Fuel Administration.

The course shows that \$36,000,000 worth of gas can be saved annually by proper adjustment of cooking appliances used by more than 2,000,000 domestic consumers, and that through a saving of 1,000 feet per month by each domestic consumer there will be effected a saving of 2,000,000,000 feet per month. This, it is pointed out, will release sufficient coal to make 2,000,000 3-inch shells and enough coal to send one 15,000-ton troopship overseas every day in the month.

The course will be established first in Ohio and Kentucky. Later it will be offered in all other states in the gas producing territory. School teachers will be supplied with text-books and suggestions for conducting the course, which is to be installed as a part of the curriculum through the cooperation of the state boards of education. The course will include elementary instruction as to the formation and production of natural gas and the application of proper methods for its most economical use.

Prize Banquet for Miners

Greensburg, Pa., October 25.—The Westmoreland county mine which makes the greatest average increase in its coal production in November, as compared with the October output, will receive a big Christmas dinner for its workers. That was the announcement today of James S. Amend, district production manager, who has already aroused a spirit of good-natured rivalry among the 200 mining camps of the district. This rivalry promises to become more intense in the November drive to win the Christmas banquet.

Under the plan announced by the district production manager, the prize dinner will go to the mine making the greatest percentage of increase in its tonnage. Competition will be limited to mines which produce a minimum of 10,000 tons a month.

It is probable that the mine winning the dinner will also land the service flag for one month. This flag is to be awarded each month to the mine making the greatest actual increase in its output. A mine which wins and holds the flag during a series of months, will be awarded permanent possession of the honor banner at the close of the coal production campaign. The dinner to the men is to be given in recognition of the personal efforts of the mine workers.

Miners Get Industrial Service Flag

Greensburg, Pa., October 28.—Forty-eight men, or 38.3 per cent of the working organization of the New Alexandria Coke Company, at Andrico, won honor distinctions for full time service during July, August and September. Each man worked 78 days during the three months and individual tonnage of the 48 men average 17 tons a day.

A big celebration will be held at the New Alexandria works this week and personal letters of congratulation and appreciation will be presented the honor roll workers. These letters have been addressed to the men by J. B. Nale, Production Manager of the United States Fuel Administration. James S. Amend, district production manager, will present the letters and will personally commend each worker for his loyal and patriotic service.

COAL COMMISSION TO STUDY CONDITIONS IN EUROPE

Appointment of a special commission of the United States Fuel Administration to inquire into conditions and government regulations affecting the coal industry in foreign countries has been announced by Fuel Administrator Harry A. Garfield.

The commission will consist of Walter E. Hope, who joined the Fuel Administration on September 19, 1917, as director of the Bureau of State Organizations; S. Brinckerhoff Thorne of New York, coal expert, and James H. Allport, one of the engineers to the Fuel Administration. They will sail soon for Europe.

Mr. Hope went to the Fuel Administration from New York, where he is a member of the law firm of Maston & Nichols. He is a graduate of the New York Law School, and of Princeton, where he was editor of the *Daily Princetonian*.

Mr. Thorne is a graduate of Yale, '96 and is president of the Temple Coal Company and of Thorne, Neal & Company, coal distributors. At college he played three years on the varsity football and was captain of the team the last year. Since then his business has been coal.

Mr. Allport is a consulting engineer of national reputation. Prior to his connection with the Fuel Administration he was connected with many companies. He attended the University of Pennsylvania, taking special courses, and lives at Philipsburg, Center county, Pa.

Coal Saving by "Skip Stop" System

Six months operation under the "Skip-Stop" system, adopted by the street railroads of the country as a coal conservation measure, shows a saving in coal, or its power, equivalent, in 24 States, of 687,122 tons annually, according to the latest figures announced by the U. S. Fuel Administration. Reports from the other States are not yet available.

Massachusetts reported the greatest saving, of 191,000 tons; Pennsylvania comes next, with 169,000 tons; Missouri was third, with 52,422; New York, 50,000; New Jersey, 30,000; Illinois, 25,000; Ohio, 23,000, and Michigan, 22,000. Other States, showing a saving of 10,000 tons or more, are: Tennessee, 18,000; Connecticut, 15,000; California, 11,000; Minnesota and Wisconsin, 10,000.

While complete reports from the street railroads of the entire country are lacking, the "Skip-Stop" method of operation has, it is estimated by the Fuel Administration, effected a saving from old methods of about 10 per cent in power and consequently in fuel necessary to produce that power.

FURTHER DEVELOPMENT OF CHROMITE IS DISCOURAGED

The chrome ore supply in the United States is sufficient, the situation is in hand, and additional investments for production are not necessary for the present, the War Industries Board announces.

Hugh W. Sanford, chief of the Ferro Alloys Section of the Chemicals Division of the board, authorizes this statement of the point of view in regard to the production of domestic chrome ore:

"Owing largely to the fact that consumption of chrome ore in the United States has been reduced by changes brought about by the war program, and, furthermore, on account of the large domestic production of ore that has taken place in the United States during the past year, in the opinion of the War Industries Board, the situation is well in hand and there is no necessity for the present of additional investments being made in the United States for the production of chrome ore."

PERSONALS

A. C. Emery having resigned as General Purchasing Agent in order to devote his entire time to the Edison International Corporation, William Dykeman has effective October 1, 1918, been promoted and will assume the duties of General Purchasing Agent for the Thomas A. Edison Industries.



James S. Douglas, lately returned to the States after spending several months in France in Red Cross work, was recently in Washington. Mr. Douglas leaves for France shortly, where he will resume the work he has undertaken.

John C. Howard, of Salt Lake City, Utah, after spending several weeks in the East in the interest of the oil industry of his State, has returned home.

A. Scott Thompson, of Miami, Okla., who has done such splendid work as chairman of the Mine Taxation Committee of the American Mining Congress, and who has made the Washington office of that organization his headquarters for the past year, has returned to his home. Mr. Thompson will return to Washington for a short period during November.

J. M. Hoffman, of Kansas City, Mo., spent the greater part of October in Washington and the East.

John T. Burns, western secretary of the American Mining Congress, after an extended western trip, is again at the Washington headquarters.



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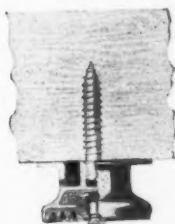
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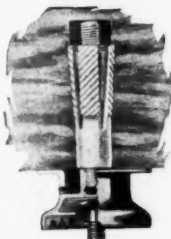
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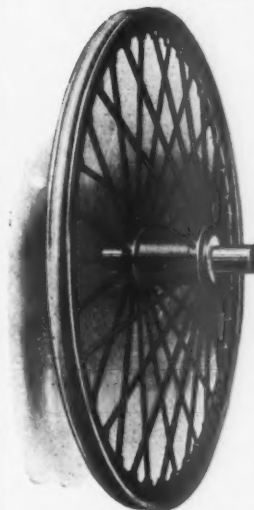
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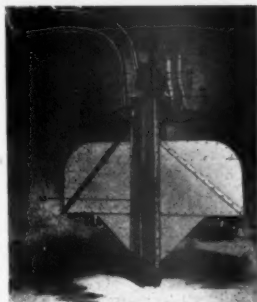
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Worthington Pump & Machinery Corp., 115 Broadway, New York, N. Y.

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Ohio Grease Co., Loudenville, Ohio

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Allis-Chalmers Mfg. Co., Milwaukee, Wis.
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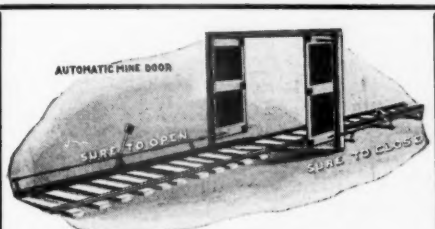
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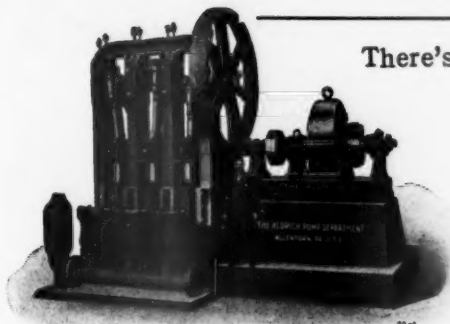
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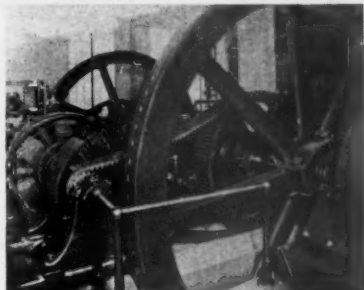
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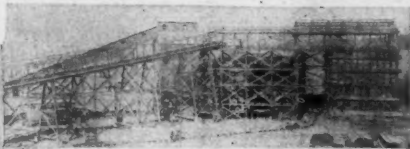
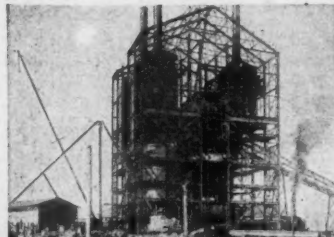
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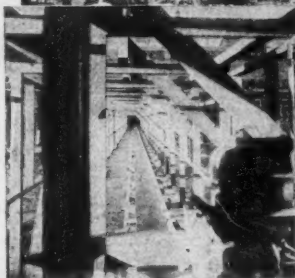


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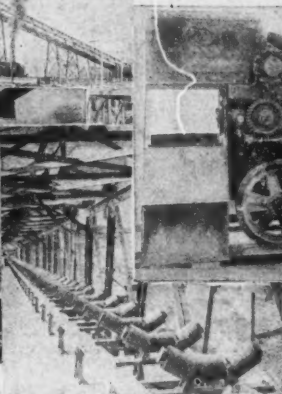
View of Ledge Roasters and inclined steel gallery with belt conveyor.



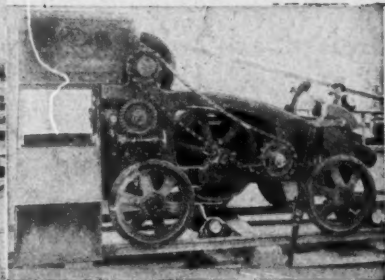
General view of conveyers from filter to storage bin.



Interior view, showing belt handling concentrates.



Interior view of steel gallery, showing inclined belt conveyor, framework and idler pulleys.



Belt tripper operating over storage bin for concentrates.

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